WEST Search History

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DATE: Thursday, October 07, 2004

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		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L9	L7 AND L8	27
☐	L8	OPG OR OPGL OR RANKL	2288
☐	L7	424/130.1,133.1,134.1,136.1,139.1,141.1,142.1.CCLS.	2686
☐	L6	osteoprotegerin binding protein	20
☐	L5	Boyle.IN.	3283
☐	L4	Boyle-William.IN.	2
☐	L3	Boyle-W.IN.	2
☐	L2	Boyle-W-J.IN.	66
☐	L1	(Boyle-William-J.IN.)	82

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Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US D263306 S

Using default format because multiple data bases are involved.

L4: Entry 1 of 2 File: USPT Mar 9, 1982

US-PAT-NO: D263306
DOCUMENT-IDENTIFIER: US D263306 S

TITLE: Dry blast cabinet

DATE-ISSUED: March 9, 1982

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shulec; Jerome D.	Grosse Pointe Farms	MI		
Boyle; William	Grosse Pointe Woods	MI		
Motyl; Kenneth J.	Warren	MI		

US-CL-CURRENT: D15/124

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWMC | Draw. Des

☐ 2. Document ID: US 4153009 A

L4: Entry 2 of 2 File: USPT May 8, 1979

US-PAT-NO: 4153009
DOCUMENT-IDENTIFIER: US 4153009 A

TITLE: Electric shock training device for animals

DATE-ISSUED: May 8, 1979

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William	Romeoville	IL	60441	

US-CL-CURRENT: 119/850; 119/822, 119/908

ABSTRACT:

An electric shock protective device for animals to protect, for example, a bandage affixed to one of the animal's legs. The device is positioned on or around the bandage, and if the animal attempts to bite or chew on the bandage, or the sore or wound on its leg, its mouth and tongue will come into contact with the protective device causing it to produce a mild electric shock. The device includes a flexible

mounting band dimensioned to surround the leg of an animal for which it is intended, a plurality of electrical conductors such as thin copper bus bars mounted thereon in substantially parallel relationship, an electrical power source such as one or more electrically connected batteries having a negative and a positive terminal, a first one of said electrical conductors connected to said negative terminal and a second one of said electrical conductors connected to said positive terminal. The electrical conductors face outwardly when the protective device is wrapped around the bandaged leg, whereby the animal's tongue or mouth contacts both the said first and second conductors which completes an electrical circuit and produces an electrical shock to the portion of the tongue or mouth in contact with the conductors. More than two conductors may be mounted in parallel spaced apart relationship on the flexible mounting band, in which case they are connected so each adjacent one is of opposite polarity.

10 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Terms	Documents
Boyle-William.IN.	2

Hit List

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Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: WO 8905664 A, JP 2868817 B2, US 4891263 A, US 4916193 A, US 4916207 A, US 4920203 A, EP 390860 A, JP 03502651 W, US 5066772 A, US 5120802 A, US 5145945 A, US 5152781 A, US 5185408 A, US 5256764 A, US 5274074 A, EP 390860 A4, EP 390860 B1, US 5412068 A, DE 3853591 G, US 5486593 A, US 5531998 A, CA 1338650 C

Using default format because multiple data bases are involved.

L3: Entry 1 of 2 File: DWPI Jun 29, 1989

DERWENT-ACC-NO: 1989-206468
DERWENT-WEEK: 199915
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TITLE: New polycarbonate homopolymers and copolymers - and use in resorbable or bio-durable biocompatible medical devices

INVENTOR: BOYLE, W J; CHIU, T ; KOTLIAR, A M ; MARES, F ; PATEL, K M ; TANG, R T ; PATEL, J M ; TANG, R T H ; BOYLE, W ; PATEL, J ; TANG, R ; CHIU, T H ; PATEL, K

PRIORITY-DATA: 1988US-0227386 (August 2, 1988), 1987US-0134290 (December 17, 1987), 1987US-0134321 (December 17, 1987), 1987US-0134339 (December 17, 1987), 1988US-0226706 (August 1, 1988), 1988US-0232408 (August 15, 1988), 1990US-0467067 (January 18, 1990), 1990US-0466109 (January 16, 1990), 1992US-0833206 (February 10, 1992), 1991US-0793747 (November 18, 1991), 1992US-0916751 (July 22, 1992), 1992US-0917242 (July 22, 1992), 1993US-0146548 (November 1, 1993), 1994US-0301149 (September 6, 1994), 1994US-0311301 (September 23, 1994), 1992US-0843116 (February 28, 1992), 1993US-0162814 (December 3, 1993), 1989CA-0590294 (February 7, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 8905664 A	June 29, 1989	E	082	
JP 2868817 B2	March 10, 1999		032	A61L027/00
US 4891263 A	January 2, 1990		015	
US 4916193 A	April 10, 1990		013	
US 4916207 A	April 10, 1990		000	
US 4920203 A	April 24, 1990		033	
EP 390860 A	October 10, 1990		000	
JP 03502651 W	June 20, 1991		000	
US 5066772 A	November 19, 1991		013	
US 5120802 A	June 9, 1992		015	C08G064/18
US 5145945 A	September 8, 1992		024	C08G063/91
US 5152781 A	October 6, 1992		024	A61M011/00
US 5185408 A	February 9, 1993		013	C08G063/64
US 5256764 A	October 26, 1993		025	C08G063/00
US 5274074 A	December 28, 1993		026	C08G063/00
EP 390860 A4	June 12, 1991		000	
EP 390860 B1	April 12, 1995	E	051	
US 5412068 A	May 2, 1995		000	C08G064/00

DE 3853591 G	May 18, 1995	000	A61L017/00
US 5486593 A	January 23, 1996	023	C08G063/91
US 5531998 A	July 2, 1996	014	A61K009/70
CA 1338650 C	October 15, 1996	000	C08G063/64

390860 B1 INT-CL (IPC): A61K 9/70; A61L 15/00; A61L 15/64; A61L 17/00; A61L 27/00; A61L 31/00; A61M 11/00; C08F 283/00; C08G 63/00 ; C08G 63/08; C08G 63/62; C08G 63/64; C08G 63/91; C08G 64/00; C08G 64/02; C08G 64/18; C08J 3/30; C08L 71/02; D01F 6/64

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw. Desc

☐ 2. Document ID: US 4153009 A, CA 1103304 A

L3: Entry 2 of 2 File: DWPI May 8, 1979

DERWENT-ACC-NO: 1979-E7073B
DERWENT-WEEK: 197921
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TITLE: Bandage protector for animal - has flexible band which supports copper strips connected to respective terminals of battery

INVENTOR: BOYLE, W

PRIORITY-DATA: 1977US-0822735 (August 8, 1977)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 4153009 A	May 8, 1979		000	
CA 1103304 A	June 16, 1981		000	

INT-CL (IPC): A01K 15/00; H05C 1/00

ABSTRACTED-PUB-NO: US 4153009A
BASIC-ABSTRACT:

The device includes a flexible mounting band for a thin copper bus bars. Electrically connected batteries have a first conductor connected to the negative terminal and a second conductor connected to the positive terminal.

The electrical conductors face outwardly when the protective device is wrapped around a bandaged leg, whereby the animal's tongue or mouth contacts both the conductors which completes an electrical circuit and produces an electrical shock.

More than two conductors may be mounted in parallel spaced apart relationship on the flexible mounting band.

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw. Desc

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Terms	Documents
Boyle-W.IN.	2

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☐ 1. Document ID: WO 2004075788 A2, US 20040172055 A1

Using default format because multiple data bases are involved.

L2: Entry 1 of 66 File: DWPI Sep 10, 2004

DERWENT-ACC-NO: 2004-625139
DERWENT-WEEK: 200460
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TITLE: Expandable frame for embolic filtering device, has articulation region for forming D-shaped curve extending from apex of partial loop to distribute strain developed, when half frames move between expanded and collapsed positions

INVENTOR: BOYLE, W J ; CORNISH, W E ; D'AQUANNI, P ; DENISON, A E ; GESSWEIN, D H ; GRANDFIELD, R ; HUTER, B C ; HUTER, S J ; LIND, K J ; MAGRINI, K M ; PAPP, J E ; PETERSON, C R ; RICHARDSON, M T ; TOKARCHIK, T ; D'AQUANNI, P J

PRIORITY-DATA: 2003US-0377285 (February 27, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 2004075788 A2	September 10, 2004	E	000	A61F002/01
US 20040172055 A1	September 2, 2004		028	A61M029/00

INT-CL (IPC): A61 F 2/01; A61 M 29/00

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Des

☐ 2. Document ID: US 20040088002 A1

L2: Entry 2 of 66 File: DWPI May 6, 2004

DERWENT-ACC-NO: 2004-356280
DERWENT-WEEK: 200433
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TITLE: Embolic protection device deploying system, has spacer unit placed between torque control device and restraining sheath to prevent sheath from moving proximally on guide wire until spacer unit is removed

INVENTOR: BOYLE, W J ; HUTER, B C ; PETERSON, C R ; SCHWARTEN, D E ; STACK, R S

PRIORITY-DATA: 2001US-0845758 (April 30, 2001), 2003US-0662697 (September 15, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040088002 A1	May 6, 2004		018	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US20040088002A
BASIC-ABSTRACT:

NOVELTY - The system has a torque control device to be connected to a guide wire (18) for rotating the guide wire. A spacer unit is placed between the torque control device and a restraining sheath (20) to prevent the sheath from moving proximally on the guide wire until the spacer unit is removed. A wire introducer has a tubular unit which extends distally away from the control device to help prevent the wire from bending.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a method for deploying within a body lumen an embolic protection device

(b) an embolic protection system

(c) a method of recovering an embolic protection device

(d) a system for recovering an embolic protection device.

USE - Used for deploying an embolic protection device within a body vessel.

ADVANTAGE - The system is relatively easy for a physician to use and is failsafe to deploy the embolic protection device into desired area without releasing any captured embolic debris into the body vessel.

DESCRIPTION OF DRAWING(S) - The drawing shows an elevational view of a deployment control system.

Deployment control system 10

Embolic protection device 12

Filter unit 16

Guide wire 18

Restraining sheath 20

☐ 3. Document ID: US 20040015184 A1

L2: Entry 3 of 66 File: DWPI Jan 22, 2004

DERWENT-ACC-NO: 2004-090598
DERWENT-WEEK: 200409
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TITLE: Embolic material capturing system for capturing embolic material, has occluding device expanded to block blood flow and capture embolic material, and contracted to unblock blood vessel and facilitate recovery of residual embolic material

INVENTOR: BOYLE, W J ; DENISON, A E ; MULLER, P F

PRIORITY-DATA: 2000US-0746790 (December 21, 2000), 2003US-0457073 (June 6, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040015184 A1	January 22, 2004		011	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US20040015184A
BASIC-ABSTRACT:

NOVELTY - The system has an occluding device (38) set at a predetermined position from an interventional procedure site (14). The occluding device is expanded to block blood flow and capture embolic material (40), and contracted to unblock the blood vessel and facilitate recovery of residual embolic material.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an embolic material capturing method.

USE - For capturing embolic material created or released into bloodstream during therapeutic interventional procedure.

ADVANTAGE - Ensures efficient capture of embolic materials. Simplifies deployment and removal of embolic material from within vasculature.

DESCRIPTION OF DRAWING(S) - The figure shows the sectional view of the occluding device, at the expanded state.

Blood vessel 12

Interventional procedure site 14

Coiled tip 20

Occluding device 38

Embolic material 40

☐ 4. Document ID: US 6679902 B1

L2: Entry 4 of 66 File: DWPI Jan 20, 2004

DERWENT-ACC-NO: 2004-118536
DERWENT-WEEK: 200412
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TITLE: Sheath for delivering and deploying intravascular filter device within body lumen, includes elongated, tubular proximal portion for deployment within body lumen and tubular distal tip having cavity for slidable receipt of filter device

INVENTOR: BOYLE, W J ; DENISON, A E ; HUTER, B C

PRIORITY-DATA: 2000US-0619001 (July 19, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6679902 B1	January 20, 2004		010	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US 6679902B
BASIC-ABSTRACT:

NOVELTY - A sheath (10) for delivering and deploying an intravascular filter device within a body lumen, comprises an elongated, tubular proximal portion for deployment within a body lumen and a tubular distal tip extending from the proximal portion. The outside diameter of the distal tip is less than the outside diameter of the proximal portion. The distal tip has a cavity (50) for slidable receipt of the filter device (22).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a delivery system comprising an expandable filter device, a guide wire, and the inventive delivery sheath.

USE - For delivering and deploying an intravascular filter device within a body lumen.

ADVANTAGE - The inventive delivery sheath has a sufficiently low profile that it may cross a lesion (20) without causing any significant abrasion, which may lead to the creation of embolic particles. It has a soft and flexible distal tip (14) to reduce trauma to the lesion in the event of contact during crossing and to reduce possible abrasion during deployment of the filter. Further, the filter includes features that allow for rapid deployment of the filter with a minimum of relative motion between the delivery sheath and the guide wire.

DESCRIPTION OF DRAWING(S) - The figure is a sectional view of a delivery sheath made of the invention.

Sheath 10

Distal tip 14

Lumen 16

Lesion 20

Filter device 22

Guidewire 34

Cavity 50

Radiopaque marker 60

☐ 5. Document ID: US 20040006361 A1

L2: Entry 5 of 66 File: DWPI Jan 8, 2004

DERWENT-ACC-NO: 2004-070964
DERWENT-WEEK: 200407
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TITLE: Inner support structure for embolic filtering device, has longitudinal tubular unit in support region to support proximal portion of filter assembly and another support region to support distal portion of assembly

INVENTOR: BOYLE, W J ; PAPP, J E ; SANCHEZ, F ; SAVILLE, S T

PRIORITY-DATA: 2002US-0186258 (June 27, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040006361 A1	January 8, 2004		023	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US20040006361A
BASIC-ABSTRACT:

NOVELTY - The structure has a longitudinal tubular unit in a support region to support a proximal portion of a filter assembly and another support region to support a distal portion of the filter assembly. A bushing is coupled to a guide wire (28) and a sleeve with a head on proximal end positioned within a cavity in the bushing facilitates rotation and restricts longitudinal movement of the sleeve.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) an embolic filtering device

(b) a method of coupling a strut of an embolic filtering device to a delivery device.

USE - Used in an embolic filtering device employed for performing interventional procedure in stenosed or occluded region of a body vessel.

ADVANTAGE - The expandable filter assembly with a reduced profile in the collapsed condition maintains structural continuity between the proximal end of the cage and the distal end of the filter to collect embolic debris which may be released into a patients vasculature.

DESCRIPTION OF DRAWING(S) - The drawing shows an elevational view, partially in cross section, of an embolic filtering device as it is being delivered within a body vessel downstream from an area to be treated.

Embolic filtering device 20

Guide wire 28

Expandable cage 32

Coil tip 34

Artery 36

☐ 6. Document ID: US 20040002730 A1

L2: Entry 6 of 66 File: DWPI Jan 1, 2004

DERWENT-ACC-NO: 2004-053004
DERWENT-WEEK: 200405
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TITLE: Embolic filtering device for use in bifurcated vessel, has delivery unit having two guide wires, wherein distal-end region of one guide wire extends through one leg of filter element and other guide wire extends through other leg

INVENTOR: BOYLE, W J ; DENISON, A E

PRIORITY-DATA: 2002US-0180287 (June 26, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040002730 A1	January 1, 2004		015	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US20040002730A
BASIC-ABSTRACT:

NOVELTY - The device (21) includes a delivery unit (27) having two guide wires (28,29), a filter support (24) having two expandable loops, and a filter element (26) having two legs (52,54). The distal-end region of the guide wire (28) of the delivery unit extends through the first leg of the filter element and the guide wire (29) extends through the second leg of the filter element.

DETAILED DESCRIPTION - The guide wire (29) is coupled to the guide wire (28) and projects distally from the distal end of the guide wire (28). A junction is formed in the intersection between the guide wires. The expandable loops are respectively coupled to the guide wires. An opening is formed at the proximal end of the filter element coupled to the filter support. The first leg extends distally towards the distal end of the guide wire (28) form the first loop of filter support. The second leg extends distally towards the distal end of the guide wire (29) from the second loop of the filter support.

USE - For use in bifurcated vessel.

ADVANTAGE - Minimizes the possibility of emboli floating downstream through either of the branch vessels.

DESCRIPTION OF DRAWING(S) - The figure shows the perspective view of the embolic filtering device.

Embolic filtering device 21

Filter support 24

Filter element 26

Delivery unit 27

Guide wires 28,29

☐ 7. Document ID: US 20030217794 A1

L2: Entry 7 of 66 File: DWPI Nov 27, 2003

DERWENT-ACC-NO: 2004-060028
DERWENT-WEEK: 200406
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TITLE: Medical device e.g. self-expanding stent, embolic filter device, has structure element made up of nickel-titanium alloy which is subjected to cold working in deep drawing process so that element remains in martensitic phase

INVENTOR: BOYLAN, J F; BOYLE, W J ; HUTER, S J ; MAGRINI, K M

PRIORITY-DATA: 2002US-0155910 (May 24, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030217794 A1	November 27, 2003		014	C22F001/10

INT-CL (IPC): C22 F 1/10

ABSTRACTED-PUB-NO: US20030217794A
BASIC-ABSTRACT:

NOVELTY - The device includes a self-expandable structural element made up of nickel-titanium alloy and which is collapsible for placing in a delivery position. The nickel-titanium alloy is subjected to cold working in a deep drawing process, so that the alloy remains in the martensitic phase regardless of the stress applied to element, to maintain the element in the delivery position.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for medical device manufacturing method.

USE - Medical device such as self-expanding stent is used in treatment of heart disease, filtering device for capturing embolic debris in blood vessel during therapeutic interventional procedure like balloon angioplasty, osmium stent, guide wires, endovascular grafts, vena cava filter, septal plugs.

ADVANTAGE - The medical device with linear pseudoelastic behavior and without a phase transformation or onset of stress induced martensite, is realized. Element with higher mechanical strength is obtained.

☐ 8. Document ID: US 20030207827 A1

L2: Entry 8 of 66 File: DWPI Nov 6, 2003

DERWENT-ACC-NO: 2004-041572
DERWENT-WEEK: 200404
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TITLE: Novel osteoprotegerin useful for treating conditions resulting in bone loss such as osteoporosis, hypercalcemia, Paget's disease of bone, bone loss caused by rheumatoid arthritis or osteomyelitis

INVENTOR: BOYLE, W J ; CALZONE, F J ; CHANG, M ; LACEY, D L

PRIORITY-DATA: 1996US-0771777 (December 20, 1996), 1995US-0577788 (December 22, 1995), 1996US-0706945 (September 3, 1996), 1998US-0132985 (August 12, 1998), 1999US-0405032 (September 24, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030207827 A1	November 6, 2003		141	A61K048/00

INT-CL (IPC): A61 K 48/00; C07 H 21/04; C12 N 5/06; C12 N 9/64; C12 P 21/02; C12 Q 1/68

ABSTRACTED-PUB-NO: US20030207827A
BASIC-ABSTRACT:

NOVELTY - A purified and isolated polypeptide having osteoprotegerin (OPG), an OPG polypeptide comprising a fully defined sequence of 401 amino acids (S1) as given in the specification having amino terminus at residue 22, and 1-216 amino acids are deleted from carboxy terminus, human OPG polypeptide, is new.

DETAILED DESCRIPTION - A purified and isolated polypeptide (I) comprising osteoprotegerin (OPG), an OPG polypeptide (Ia) comprising a fully defined sequence of 401 amino acids (S1) as given in the specification having an amino terminus at residue 22, and where from 1-216 amino acids are deleted from the carboxy terminus, an OPG polypeptide (Ib) comprising (S1) having an amino terminus at residue 22, where from 1-10 amino acids are deleted from amino terminus and, optionally from 1-216 amino acids are deleted from the carboxy terminus, or an human OPG polypeptide (Ic) chosen from huOPG (22-201)-Fc, huOPG (22-401)-Fc, huOPG (22-180)-Fc, huOPG met (22-401)-Fc, huOPG Fc-met (22-401), huOPG met (22-185), huOPG met (22-189), huOPG met (22-194), huOPG met (27-185), huOPG met (27-189), huOPG met (27-194), huOPG met (32-401), huOPG met-lys(22-401), huOPG met (22-401), huOPG met (22-401)-Fc (P25A), huOPG met (22-401) (P25A), huOPG met (22-401) (P26A), huOPG met (22-401) (P26D), huOPG met (22-194) (P25A), huOPG met (22-194) (P26A), huOPG met met-(lys)3 (22-401) and huOPG met met-arg-gly-ser-(his)6(22-401).

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated nucleic acid (II) encoding a polypeptide comprising at least one of the biological activities of OPG where the nucleic acid is chosen from a fully defined sequence of 2432 (S2), 1324 (S3) and 1355 bp (S4) as given the specification, or their complementary strands, nucleic acid which hybridize under stringent conditions with (S2)-(S4), nucleic acids which hybridize under stringent conditions with nucleotides 148 through 337 inclusive as the sequence of FRI-1 amino acid sequence, and nucleic acid which are degenerate to the above nucleic acids;

(2) a polypeptide (III) encoded by (II);

(3) an expression vector (IV) comprising (II);

(4) a host cell (V) transformed or transfected with (IV);

(5) a transgenic mammal comprising (IV);

(6) producing (I);

(7) a polypeptide (VI) comprising an amino acid sequence of at least about 164 amino acids comprising four cysteine-rich domains characteristic of the cysteine rich domains of tumor necrosis factor receptor extracellular regions, and an activity of increasing bone density;

(8) a nucleic acid (VII) encoding (Ic);

(9) an antibody or its fragment (VIII) which specifically binds to OPG;

(10) a composition comprising OPG in a carrier, adjuvant, solubilizer, stabilizer and/or anti-oxidant; and

(11) an osteoprotegerin multimer (IX) consisting of osteoprotegerin monomers.

ACTIVITY - Osteopathic; Cytostatic; Antirheumatic; Antiarthritic.

MECHANISM OF ACTION - Prevents bone resorption. Twelve week old female Fisher rats were ovariectomized (OVX) or sham operated and dual X-ray absorptiometry (DEXA) measurements made of the bone density in the distal femoral metaphysis. After 3 days recovery period, the animals received daily injections for 14 says as follows: ten

sham operated animals received vehicle (phosphate buffered saline); ten OVX animals received vehicle (phosphate buffered saline); six OVX animals received OPG-Fc 5 mg/kg SC; six OVX animals received pamidronate (PAM) 5 mg/kg SC; six OVX animals received estrogen (ESTR) 40 ug/kg SC. After 7 and 14 days treatment the animals had bone density measured by DEXA. The DEXA measurements of bone density showed a trend to reduction in the bone density following ovariectomy that was blocked by OPG-Fc. The histomorphometric analysis confirmed these observations with OPG-Fc treatment producing a bone density that was significantly higher in OVX rats than that seen in untreated OVX rats. These results confirmed the activity of OPG in the bone loss associated with withdrawal of endogenous estrogen following ovariectomy.

USE - (VIII) is useful for detecting the presence of OPG in a biological sample which involves incubating the sample with (VIII) under conditions that allow binding of (VIII) to OPG and detecting the bound (VIII). (I) is useful for assessing the ability of a candidate substance to bind to (I) which involves incubating OPG with the candidate substance under conditions that allow binding and measuring the bound substance. (II) is useful for regulating the levels of OPG in an animal (human) which involves modifying the animal with (II). The nucleic acid promotes an increasing in tissue level of OPG. (I) is useful for treating a bone disorder which involves administering (I). The polypeptide is human OPG. The bone disorder is excessive bone loss. The bone disorder is chosen from osteoporosis, Paget's disease of bone, hypercalcemia, hyperparathyroidism, steroid-induced osteopenia, bone loss due to rheumatoid arthritis, bone loss due to osteomyelitis, osteolytic metastasis, and periodontal bone loss. The method further involves administering a substance chosen from bone morphogenic protein BMP-1 through BMP-12, TGF- beta family members, IL-1 inhibitor, TNF alpha inhibitors, parathyroid hormone and their analogs, parathyroid hormone related protein and their analogs, E series of prostaglandins, bisphosphonates, and bone-enhancing minerals (all claimed). (I) is useful for treating osteoporosis such as primary osteoporosis, endocrine osteoporosis (hyperthyroidism, Cushing's syndrome, and acromegaly), hereditary and congenital forms of osteoporosis (osteogenesis imperfecta , homocystinuria, Menke's syndrome, and Riley-day syndrome) and osteoporosis due to immobilization of extremities, hypercalcemia resulting from solid tumors and hematologic malignancies (multiple myeloma, lymphoma and leukemia), idiopathic hypercalcemia, and hypercalcemia associated with hyperthyroidism and renal function disorders, osteopenia following surgery, osteonecrosis or bone cell death, etc.

DESCRIPTION OF DRAWING(S) - The figure shows activity of OPG administered to ovariectomized rats.

☐ 9. Document ID: AU 2003243139 A1, WO 2003086289 A2, US 20040023313 A1

L2: Entry 9 of 66 File: DWPI Oct 27, 2003

DERWENT-ACC-NO: 2003-845253
DERWENT-WEEK: 200436
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TITLE: New isolated antibody that specifically binds osteoprotegerin ligand, useful for diagnosing or treating bone disorders, such as osteoporosis, bone loss from arthritis, Paget's disease or osteopenia

INVENTOR: BOYLE, W J ; ELLIOTT, R L ; HUANG, H ; MARTIN, F ; MEDLOCK, E ; SULLIVAN, J K ; SULLIVAN, J J

PRIORITY-DATA: 2002US-370407P (April 5, 2002), 2003US-0408901 (April 7, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 2003243139 A1	October 27, 2003		000	A61K000/00
WO 2003086289 A2	October 23, 2003	E	156	A61K000/00
US 20040023313 A1	February 5, 2004		000	G01N033/53

INT-CL (IPC): A61 K 0/00; C07 K 16/40; G01 N 33/53; G01 N 33/567

ABSTRACTED-PUB-NO: WO2003086289A
BASIC-ABSTRACT:

NOVELTY - An isolated human antibody that specifically binds osteoprotegerin ligand (OPGL), is new.

DETAILED DESCRIPTION - An isolated human antibody that specifically binds osteoprotegerin ligand (OPGL). The antibody comprises a heavy chain and a light chain, where the heavy chain comprises a heavy chain variable region having any of the 12 sequences of 116, 115, 446 or 445 amino acids, and where the light chain comprises a light chain variable region having any of the 12 sequences of 108, 109, 214 or 215 amino acids, all fully defined in the specification, or their antigen-binding or immunologically functional immunoglobulin fragments.

INDEPENDENT CLAIMS are also included for the following:

(1) a pharmaceutical composition comprising a pharmaceutical carrier and a therapeutic amount of the antibody cited amount;

(2) methods of treating an osteopenic disorder in a patient, comprising administering to a patient the above pharmaceutical composition or a pharmaceutical amount of the antibody cited above; and

(3) a method for detecting OPGL in a biological sample, comprising contacting the sample with the above antibody under conditions that allow for binding of the antibody to OPGL, and measuring the level of bound antibody in the sample.

ACTIVITY - Osteopathic; Antiarthritic; Cytostatic. No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - The composition and methods are useful in diagnosing or treating bone disorders, such as osteoporosis, bone loss from arthritis, Paget's disease or osteopenia. The antibody may also be used for detecting OPGL in biological samples and in identifying cells or tissues that produce the protein.

☐ 10. Document ID: US 20030176889 A1

L2: Entry 10 of 66 File: DWPI Sep 18, 2003

DERWENT-ACC-NO: 2004-020742
DERWENT-WEEK: 200402
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TITLE: Delivery system for expandable embolic filter device used in e.g. balloon angioplasty, stenting procedure, has sheath which can be retracted over filter device to deploy filter device within body vessel

INVENTOR: BOYLE, W J ; HUTER, B C ; HUTER, S J

PRIORITY-DATA: 2000US-0691463 (October 17, 2000), 2003US-0385162 (March 10, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030176889 A1	September 18, 2003		016	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US20030176889A
BASIC-ABSTRACT:

NOVELTY - A dual lumen delivery sheath (10) includes a lumen (16) for receiving an expandable filter device (12), and another lumen (18) for receiving a guide wire (14). The filter device and sheath can be moved along the guide wire to position the filter device within a blood vessel. The sheath can be retracted over the filter device to deploy the filter device within the blood vessel.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a delivery sheath.

USE - For embolic filter device used in e.g. balloon angioplasty, stenting procedure, laser angioplasty, atherectomy.

ADVANTAGE - Allows a physician to steer through tortuous anatomy. Can be easily used by the physician to place the filtering device into distal and tight lesions of anatomy.

DESCRIPTION OF DRAWING(S) - The figure shows the partially sectioned elevational view of sheath.

Dual lumen delivery sheath 10

Expandable filter device 12

Guide wire 14

Lumen 16

Lumen 18

☐ 11. Document ID: US 20030158575 A1

L2: Entry 11 of 66 File: DWPI Aug 21, 2003

DERWENT-ACC-NO: 2003-627181
DERWENT-WEEK: 200359
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TITLE: Embolic protection device for e.g. balloon angioplasty, stenting procedure, laser angioplasty or atherectomy, has sheath that restrains struts in compressed state during delivery and retrieval of device to and from artery

INVENTOR: BOYLAN, J F; BOYLE, W J ; PAPP, J E ; PATEL, A H

PRIORITY-DATA: 2001US-0882930 (June 14, 2001), 2003US-0365302 (February 12, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030158575 A1	August 21, 2003		013	A61M029/00

INT-CL (IPC): A61 M 29/00

ABSTRACTED-PUB-NO: US20030158575A
BASIC-ABSTRACT:

NOVELTY - An expandable strut assembly (14), formed by struts (28), is made of cold-formed nickel-titanium alloy which is in martensitic phase only regardless of stress applied to the alloy. A sheath (46), which partially overlaps a tubular body, restrains the struts in a compressed state during delivery and retrieval of the device to and from an artery (20).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a medical device providing method.

USE - For e.g. balloon angioplasty, stenting procedure, laser angioplasty or atherectomy.

ADVANTAGE - Enhances mechanical properties, thus allowing designing of thin-walled device. Improves design flexibility, and reduces overall crossing profile. Improves system tracking through tortuous anatomy.

DESCRIPTION OF DRAWING(S) - The figure shows the partial side cross-sectional view of embolic protection device.

Expandable strut assembly 14

Artery 20

Struts 28

Sheath 46

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 82 of 82 returned.

☐ 1. Document ID: US 20040172055 A1

Using default format because multiple data bases are involved.

L1: Entry 1 of 82 File: PGPB Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040172055
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040172055 A1

TITLE: Embolic filtering devices

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Huter, Scott J.	Temecula	CA	US	
Papp, John E.	Temecula	CA	US	
Gesswein, Douglas H.	Temecula	CA	US	
Cornish, Wayne E.	Fallbrook	CA	US	
D'Aquanni, Peter	Temecula	CA	US	
Tokarchik, Thomas III	Murrieta	CA	US	
Denison, Andy E.	Temecula	CA	US	
Magrini, Kevin M.	Temecula	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Peterson, Charles R.	Murrieta	CA	US	
Boyle, William J.	Fallbrook	CA	US	
Richardson, Mark T.	Escondido	CA	US	
Grandfield, Ryan	Murrieta	CA	US	
Lind, Kathern J.	Temecula	CA	US	

US-CL-CURRENT: 606/200

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc

☐ 2. Document ID: US 20040167568 A1

L1: Entry 2 of 82 File: PGPB Aug 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040167568
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040167568 A1

TITLE: Embolic protection devices

PUBLICATION-DATE: August 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Burkett, David H.	Temecula	CA	US	
Denison, Andy E.	Temecula	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Huter, Scott J.	Temecula	CA	US	
Kokish, Arkady	Los Gatos	CA	US	
Stalker, Kent C.B.	San Marcos	CA	US	
Wang, Chicheng	Sunnyvale	CA	US	
Whitfield, John D.	Temecula	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

An embolic protection device for use in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region to capture any embolic material which may be created and released into the bloodstream during the procedure. The device includes a filtering assembly having a self-expanding strut assembly and a filter element attached thereto. In one embodiment, the filtering assembly is attached to the distal end of a guidewire and is deployed within the patient's vasculature as the guidewire is manipulated into the area of treatment. A restraining sheath placed over the filtering assembly in a coaxial arrangement maintains the filtering assembly in its collapsed position until it is ready to be deployed by the physician. Thereafter, the sheath can be retracted to expose the filtering assembly which will then self-expand within the patient's vasculature. Interventional devices can be delivered over the guidewire and any embolic debris created during the interventional procedure and released into the blood stream will enter the filtering assembly and be captured therein. Other embodiments include filtering assemblies attached to an outer tubular member and inner shaft member which apply axial force to the distal ends of the assembly to either expand or contract the struts as needed.

☐ 3. Document ID: US 20040088002 A1

L1: Entry 3 of 82 File: PGPB May 6, 2004

PGPUB-DOCUMENT-NUMBER: 20040088002
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040088002 A1

TITLE: Deployment and recovery control systems for embolic protection devices

PUBLICATION-DATE: May 6, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Peterson, Charles R.	Murrieta	CA	US	
Schwarten, Donald E.	Saratoga	CA	US	
Stack, Richard S.	Chapel Hill	NC	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A deployment control system provides controlled deployment of an embolic protection device which may include a guide wire, an expandable filter attached to the guide wire near its distal end, and a restraining sheath that maintains the expanded filter in a collapsed position. The deployment control system includes a torque control device which allows the physician to torque the guide wire into the patient's anatomy and a mechanism for preventing the guide wire from buckling as the restraining sheath is being retracted to deploy the expandable filter. A recovery control system for recovering the embolic protection device includes an inner catheter which extends within a lumen of an outer recovery sheath in a coaxial arrangement. A distal portion of the inner catheter extends beyond another recovery sheath during advancement of the recovery system into the vasculature. The recovery sheath can be advanced over the inner catheter to collapse the expandable filter. The proximal ends of the inner catheter and recovery sheath include handle portions having snap mechanisms which hold the components together as the recovery system is being advanced into the patient's vasculature.

☐ 4. Document ID: US 20040033535 A1

L1: Entry 4 of 82 File: PGPB Feb 19, 2004

PGPUB-DOCUMENT-NUMBER: 20040033535
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040033535 A1

TITLE: Antibodies to OPGL

PUBLICATION-DATE: February 19, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Thousand Oaks	CA	US	
Martin, Francis H.	Newbury Park	CA	US	
Corvalan, Jose R.	Foster City	CA	US	
Davis, C. Geoffrey	Burlingame	CA	US	

US-CL-CURRENT: 435/7.2; 530/388.22

ABSTRACT:

Antibodies that interact with osteoprotegerin ligand (OPGL) are described. Methods of treating osteopenic disorders by administering a pharmaceutically effective amount of antibodies to OPGL are described. Methods of detecting the amount of OPGL in a sample using antibodies to OPGL are described.

☐ 5. Document ID: US 20040023313 A1

L1: Entry 5 of 82 File: PGPB Feb 5, 2004

PGPUB-DOCUMENT-NUMBER: 20040023313
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040023313 A1

TITLE: Human anti-OPGL neutralizing antibodies as selective OPGL pathway inhibitors

PUBLICATION-DATE: February 5, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Malibu	CA	US	
Medlock, Eugene	Westlake	CA	US	
Sullivan, John J.	Newbury Park	CA	US	
Elliott, Robin L.	Newbury Park	CA	US	
Martin, Frank	Newbury Park	CA	US	
Huang, Haichun	Fremont	CA	US	

US-CL-CURRENT: 435/7.2; 530/388.26

ABSTRACT:

Monoclonal antibodies and hybridomas producing them that interact with osteoprotegerin ligand (OPGL) are provided. Methods of treating osteopenic disorders by administering a pharmaceutically effective amount of antibodies to OPGL are also provided. Methods of detecting the amount of OPGL in a sample using antibodies to OPGL are further provided.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 6. Document ID: US 20040015184 A1

L1: Entry 6 of 82 File: PGPB Jan 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040015184
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040015184 A1

TITLE: Vessel occlusion device for embolic protection system

PUBLICATION-DATE: January 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Denison, Andy E.	Temecula	CA	US	
Muller, Paul F.	San Calros	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A system used in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region, which is capable of capturing embolic material which may be released into a blood vessel during a therapeutic interventional procedure at the site of a lesion in the blood vessel. The system is adapted to be utilized in a collateral blood supply system adapted to enable the flow of blood to bypass the blood vessel upon blocking thereof and to enable the reverse flow of blood through the blood vessel upon unblocking thereof. The system includes a guide wire, including a distal end, adapted to be positioned in a blood vessel relative to an interventional procedure site. A guide catheter, including a distal end, is adapted to enable the interventional procedure to be performed, and to be inserted over the guide wire and through a patient's vasculature to a position in the blood vessel relative to the interventional procedure site. An occluding device for occluding and blocking a blood vessel at a location relative to the interventional procedure site is adapted to be positionable at a location relative to he interventional procedure site, to be expandable so as to prevent and block the flow of blood past the occlusion, and to enable the capture of embolic material which may be released into the blood in the blood vessel during the therapeutic interventional procedure, and to be contracted to unblock the blood vessel and enable the recovery of captured embolic material.

☐ 7. Document ID: US 20040006361 A1

L1: Entry 7 of 82 File: PGPB Jan 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040006361
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040006361 A1

TITLE: Support structures for embolic filtering devices

PUBLICATION-DATE: January 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Papp, John E.	Temecula	CA	US	
Sanchez, Francisco	Temecula	CA	US	
Saville, Steven T.	Murrieta	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

An inner support structure for an embolic filtering device includes a tubular member having a first support region for supporting the proximal portion of a filter assembly and a second support region for supporting the distal portion of the filter assembly. The inner support structure facilitates rotation and restricts longitudinal movement of the embolic filtering device relative to a guide wire. Alternatively, the inner support structure includes a bushing coupled to the guide wire and a sleeve with a head on its proximal end positioned within a cavity in the bushing, thereby facilitating rotation and restricting longitudinal movement of the sleeve. The proximal portion of the filter assembly is supported on the sleeve. A sleeve for retaining the struts of an expandable cage of the embolic filtering device includes a central lumen for positioning the sleeve onto a guide wire and peripheral lumens for positioning and retaining the struts.

☐ 8. Document ID: US 20040002730 A1

L1: Entry 8 of 82 File: PGPB Jan 1, 2004

PGPUB-DOCUMENT-NUMBER: 20040002730
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040002730 A1

TITLE: Embolic filtering devices for bifurcated vessels

PUBLICATION-DATE: January 1, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Denison, Andy E.	Temecula	CA	US	
Boyle, William J.	Fallbrook	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

An embolic filtering device for use in a bifurcated vessel includes delivery device having a first guide wire and a second guide wire. The second guide wire diverges from the distal-end region of the first guide wire. The filter device also includes a filter support having a first deployment member and a second deployment member. These deployment members can be formed as a first loop and a second loop. A bifurcated filter element is coupled to the filter support. The distal-end region of the first guide wire extends through a first leg of the filter element and the second guide wire extends through a second leg of the filter element. During use, the first leg of the filter element is deployed within a first branch of the bifurcated vessel and the second leg of the filter element is deployed within a second branch of the bifurcated vessel.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 9. Document ID: US 20030217794 A1

L1: Entry 9 of 82 File: PGPB Nov 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030217794
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030217794 A1

TITLE: Medical devices configured from deep drawn nickel-titanium alloys and nickel-titanium clad alloys and method of making the same

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47

Boylan, John F.	Murrieta	CA	US
Boyle, William J.	Fallbrook	CA	US
Magrini, Kevin M.	Oceanside	CA	US
Huter, Scott J.	Temecula	CA	US

US-CL-CURRENT: 148/563

ABSTRACT:

Nickel-titanium alloys that have been deep drawn in a cold working process have linear pseudoelastic behavior without a phase transformation or onset of stress-induced martensite. A medical device made from a structural element which has been deep drawn and subsequently formed into a desired medical device geometry will experience such linear pseudoelastic behavior.

☐ 10. Document ID: US 20030212361 A1

L1: Entry 10 of 82 File: PGPB Nov 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030212361
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030212361 A1

TITLE: Embolic protection devices

PUBLICATION-DATE: November 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Denison, Andy E.	Temecula	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Huter, Scott J.	Temecula	CA	US	
Stack, Richard S.	Chapel Hill	NC	US	
Stalker, Kent C.B.	San Marcos	CA	US	
Tarapata, Christopher	Santa Clara	CA	US	
Whitfield, John D.	Temecula	CA	US	

US-CL-CURRENT: 604/104; 604/106

ABSTRACT:

An embolic protection device for use in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region to capture any embolic material which may be created and released into the bloodstream during the procedure. The device includes a filtering assembly having a self-expanding strut assembly and a filter element attached thereto. In one embodiment, the filtering assembly is attached to the distal end of a guide wire and is deployed within the patient's vasculature as the guide wire is manipulated into the area of treatment. A restraining sheath placed over the filtering assembly in a coaxial arrangement maintains the filtering assembly in its collapsed position until it is ready to be deployed by the physician. Thereafter, the sheath can be retracted to expose the

filtering assembly which will then self-expand within the patient's vasculature. Interventional devices can be delivered over the guide wire and any embolic debris created during the interventional procedure and released into the blood stream will enter the filtering assembly and be captured therein. Other embodiments include filtering assemblies attached to an outer tubular member and inner shaft member which apply axial force to the distal ends of the assembly to either expand or contract the struts as needed.

☐ 11. Document ID: US 20030207827 A1

L1: Entry 11 of 82 File: PGPB Nov 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030207827
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030207827 A1

TITLE: OSTEOPROTEGERIN

PUBLICATION-DATE: November 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
BOYLE, WILLIAM J.	MOORPARK	CA	US	
LACEY, DAVID L.	THOUSAND OAKS	CA	US	
CALZONE, FRANK J.	WEST LAKE VILLAGE	CA	US	
CHANG, MING-SHI	NEWBURY PARK	CA	US	

US-CL-CURRENT: 514/44; 435/226, 435/320.1, 435/325, 435/6, 435/69.1, 536/23.2

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind OPG, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc

☐ 12. Document ID: US 20030187224 A1

L1: Entry 12 of 82 File: PGPB Oct 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030187224
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030187224 A1

TITLE: Chimeric OPG polypeptides

PUBLICATION-DATE: October 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Moorpark	CA	US	
Wooden, Scott	Thousand Oaks	CA	US	

US-CL-CURRENT: 530/350; 435/320.1, 435/325, 435/69.1, 530/387.3, 536/23.5

ABSTRACT:

Chimeric polypeptides comprising fusions of an osteoprotegerin dimerization domain to a heterologous sequence are provided. Also provided are nucleic acids encoding the polypeptides, expression vectors and host cells for their production and pharmaceutical compositions comprising the polypeptides.

☐ 13. Document ID: US 20030176889 A1

L1: Entry 13 of 82 File: PGPB Sep 18, 2003

PGPUB-DOCUMENT-NUMBER: 20030176889
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030176889 A1

TITLE: Delivery systems for embolic filter devices

PUBLICATION-DATE: September 18, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Huter, Scott J.	Temecula	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A delivery system for an expandable filter device includes a dual lumen delivery sheath which has a lumen for receiving the expandable filter device and a lumen for receiving a primary guide wire. The primary guide wire is utilized to place the delivery sheath and expandable filter into the desired region of the patient's vasculature via an over-the-wire or rapid-exchange arrangement. The delivery sheath can be protracted over the expandable filter device to allow the filter to be deployed within the patient's vasculature at the desired location. The delivery system can be embodied in an alternative design in which the primary guide wire extends through a guide wire lumen located in an obturator which forms part of the expandable filter device. Again, the primary guide wire is utilized to maneuver the filter device into the desired area via an over-the-wire arrangement. A slit extending longitudinally along the length of the sheath facilitates the removal of the guide wire and delivery sheath from the patient's vasculature.

☐ 14. Document ID: US 20030158575 A1

L1: Entry 14 of 82 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030158575
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030158575 A1

TITLE: Devices configured from strain hardened Ni Ti tubing

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boylan, John F.	Murrieta	CA	US	
Boyle, William J.	Fallbrook	CA	US	
Papp, John E.	Temecula	CA	US	
Patel, Anuja H.	San Jose	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

Cold worked nickel-titanium alloys that have linear pseudoelastic behavior without a phase transformation or onset of stress-induced martensite as applied to a medical device having a strut formed body deployed from a sheath is disclosed. In one application, an embolic protection device that employs a linear pseudoelastic nitinol self-expanding strut assembly with a small profile delivery system for use with interventional procedures is disclosed. Linear pseudoelastic nitinol is used in the medical device as distinct from non-linear pseudoelastic (i.e., superelastic) nitinol. The expandable strut assembly is made from a small diameter tubing of cold worked nickel-titanium alloys. The self-expanding struts that deploy the filter element is laser cut from a large diameter cold worked nickel-titanium alloy, then joined to the small diameter tubing.

☐ 15. Document ID: US 20030144685 A1

L1: Entry 15 of 82 File: PGPB Jul 31, 2003

PGPUB-DOCUMENT-NUMBER: 20030144685
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030144685 A1

TITLE: Expandable cages for embolic filtering devices

PUBLICATION-DATE: July 31, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Harrison, William J.	Temecula	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	

Huter, Scott J.	Temecula	CA	US
Muller, Paul F.	San Carlos	CA	US
Papp, John E.	Temecula	CA	US

US-CL-CURRENT: 606/200

ABSTRACT:

A self-expanding cage for use in conjunction with an embolic filtering device includes a circumferential member adapted to expand from an unexpanded position to a expanded position within the patient's body vessel. A proximal strut and distal strut are attached to the circumferential member to form the cage. A plurality of proximal and distal struts may be attached the circumferential member. Additionally, a second circumferential member can be attached to the first circumferential member. Each circumferential member can be connected by a single or a plurality of connecting struts. One embodiment of the cage utilizes a single wire to form to the cage. A delivery system attached to the single wire cage moves the cage and its associated filter element between the expanded and unexpanded positions through relative movement of the distal delivery system. This can be accomplished by either torquing the guide wire onto which the expandable cage is mounted or by longitudinally moving a tubular member which forms part of the delivery system longitudinally in relation to the guide wire.

☐ 16. Document ID: US 20030120303 A1

L1: Entry 16 of 82 File: PGPB Jun 26, 2003

PGPUB-DOCUMENT-NUMBER: 20030120303
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030120303 A1

TITLE: Flexible and conformable embolic filtering devices

PUBLICATION-DATE: June 26, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Huter, Scott J.	Temecula	CA	US	
Papp, John E.	Temecula	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A self-expanding cage for use in conjunction with an embolic filtering device includes one or more circumferential members adapted to expand from an unexpanded position to a expanded position within the patient's body vessel. At least one proximal strut and at least one distal strut are attached to the circumferential member to form the basket. The circumferential member may include a plurality of bending regions which enhance the ability of the circumferential member to move between the unexpanded and expanded positions. The proximal and distal struts can be

attached to one of the bending regions. When two or more circumferential members are utilized, each member may be connected by a connecting strut which may be connected at a bending region. The connecting strut can be a straight segment or may have a non-linear shape to provide additional flexibility. The expandable cage can be mounted to a elongated member, such as a guide wire, and can be either permanently mounted or rotatably mounted thereto.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 17. Document ID: US 20030105484 A1

L1: Entry 17 of 82 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030105484
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030105484 A1

TITLE: Intraluminal delivery system for an attachable treatment device

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Huter, Benjamin	Murrieta	CA	US	
Papp, John E.	Temecula	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A system for delivery of an intraluminal treatment device is provided. A guide wire having a recessed portion is combined with an intraluminal treatment device having a mechanism for securing the intraluminal treatment device to the recessed portion. This system permits an intraluminal treatment device to be secured to the guide way prior to or after the intraluminal delivery of the guide wire.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 18. Document ID: US 20030104485 A1

L1: Entry 18 of 82 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104485
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030104485 A1

TITLE: ANTIBODIES SPECIFIC FOR OSTEOPROTEGERIN BINDING PROTEINS AND METHOD OF USE

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47

BOYLE, WILLIAM J. MOORPARK CA US

US-CL-CURRENT: 435/7.2; 435/320.1, 435/325, 435/69.1, 530/350, 530/388.22, 536/23.5

ABSTRACT:

A novel polypeptide, oseteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw. Des

☐ 19. Document ID: US 20030100917 A1

L1: Entry 19 of 82 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100917
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100917 A1

TITLE: Offset proximal cage for embolic filtering devices

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Papp, John E.	Temecula	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

An expandable cage used in conjunction with an embolic filtering device has a strut configuration including a proximal strut assembly coupled to a distal strut assembly. A filter can be attached to the distal strut assembly which has an inlet opening. The proximal strut assembly is "offset" from the distal strut assembly in that these proximal struts extend substantially along the vessel wall of the patient, rather than being "centered" in the body vessel when the cage is expanded in a body vessel. As a result, there is little cage structure directly in front of the opening of the filter, resulting in a virtually unobstructed opening for the filter.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw. Des

☐ 20. Document ID: US 20030100488 A1

L1: Entry 20 of 82 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100488

PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100488 A1

TITLE: OSTEOPROTEGERIN BINDING PROTEINS

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
BOYLE, WILLIAM J.	MOORPARK	CA	US	

US-CL-CURRENT: 514/12; 435/252.33, 435/320.1, 435/6, 530/350, 536/23.5

ABSTRACT:

A novel polypeptide, osteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

☐ 21. Document ID: US 20030065354 A1

L1: Entry 21 of 82 File: PGPB Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030065354
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030065354 A1

TITLE: Embolic filtering devices

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Hassing, Thomas A.	San Jose	CA	US	
Majcher, Thomas H.	Bell Canyon	CA	US	
Muller, Paul	San Carlos	CA	US	
Patel, Anuja	San Jose	CA	US	
Schneiderman, Gary	San Ramon	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A self-expanding basket for use in conjunction with an embolic filtering device has a proximal set of struts which are connected to a distal set of struts by a bending region which provides enhanced bending characteristics to the basket. The bending region can be formed by intermediate links which are extremely flexible and bendable

to allow the basket to be delivered through tortuous anatomy. The intermediate links are extremely flexible and create a mechanical hinge-like connection between the proximal and distal strut assemblies. The basket thus is capable of substantial bending when being delivered through the patient's vasculature and will bend and conform to the patient's anatomy once positioned for filtering purposes. The intermediate links can also lengthen, when needed, when positioned in a curved vessel in the patient's vasculature, when needed. As a result, the basket will easily conform to a curved body vessel to maintain proper wall apposition of the filtering element with the wall of the body vessel.

☐ 22. Document ID: US 20030042186 A1

L1: Entry 22 of 82 File: PGPB Mar 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030042186
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030042186 A1

TITLE: Embolic protection devices one way porous membrane

PUBLICATION-DATE: March 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	

US-CL-CURRENT: 210/136; 210/359, 604/406

ABSTRACT:

An embolic protection device for use in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region to capture any embolic material which may be created and released into the bloodstream during the procedure. The device includes a filtering assembly having a self-expanding strut assembly and a filter element attached thereto. The filtering assembly is capable of allowing controlled backwards flow of blood through the filter assembly, or blocking the backwards flow entirely, during aspiration of embolic material trapped within the filter assembly.

☐ 23. Document ID: US 20030032941 A1

L1: Entry 23 of 82 File: PGPB Feb 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030032941
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030032941 A1

TITLE: Convertible delivery systems for medical devices

PUBLICATION-DATE: February 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Papp, John E.	Temecula	CA	US	
Sahakian, Jack	Escondido	CA	US	
Stack, Richard S.	Chapel Hills	NC	US	

US-CL-CURRENT: 604/533

ABSTRACT:

A delivery system for a medical device or other devices to be deployed within a biological body including a sheath having a longitudinal joint. The joint can be either resealable or non-resealable. The joint remains intact during delivery of the medical device, thereby facilitating accurate delivery of the medical device. During removal of the sheath, the joint is separated, thereby permitting the sheath to be peeled from the medical device while maintaining the position of the device. The delivery system allows a single operator to deploy the medical device and remove the sheath.

☐ 24. Document ID: US 20030004537 A1

L1: Entry 24 of 82 File: PGPB Jan 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030004537
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030004537 A1

TITLE: Delivery and recovery sheaths for medical devices

PUBLICATION-DATE: January 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Denison, Andy E.	Temecula	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Huter, Scott J.	Temecula	CA	US	
Papp, John E.	Temecula	CA	US	
Peterson, Charles R.	Murrieta	CA	US	
Stalker, Kent C.B.	San Marcos	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A deployment control system provides controlled deployment of an embolic protection device which may include a guide wire, an expandable filter attached to the guide wire near its distal end, and a restraining sheath that maintains the expanded filter in a collapsed position. The deployment control system includes a torque control device which allows the physician to torque the guide wire into the patient's anatomy

and a mechanism for preventing the guide wire from buckling as the restraining sheath is being retracted to deploy the expandable filter. A recovery control system for recovering the embolic protection device includes an inner catheter which extends within a lumen of an outer recovery sheath in a coaxial arrangement. A distal portion of the inner catheter extends beyond another recovery sheath during advancement of the recovery system into the vasculature. The recovery sheath can be advanced over the inner catheter to collapse the expandable filter. The proximal ends of the inner catheter and recovery sheath include handle portions having snap mechanisms which hold the components together as the recovery system is being advanced into the patient's vasculature.

☐ 25. Document ID: US 20020198560 A1

L1: Entry 25 of 82 File: PGPB Dec 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020198560
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020198560 A1

TITLE: Flush tool and method for flushing air from catheters

PUBLICATION-DATE: December 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Denison, Andy E.	Temecula	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Huter, Scott J.	Temecula	CA	US	
Peterson, Charles R.	Murrieta	CA	US	

US-CL-CURRENT: 606/194

ABSTRACT:

A flush tool provides a method of evacuating air from an intraluminal catheter. The tool has two valves which independently seal the tool to the catheter. In order to receive pressurized fluids the tool includes a flush port. When the tool is placed over the auxiliary lumen port of a rapid exchange catheter, it is capable of flushing air from the auxiliary lumen.

☐ 26. Document ID: US 20020193824 A1

L1: Entry 26 of 82 File: PGPB Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020193824
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020193824 A1

TITLE: Devices configured from strain hardened Ni Ti tubing

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boylan, John F.	Murrieta	CA	US	
Boyle, William J.	Fallbrook	CA	US	
Papp, John E.	Temecula	CA	US	
Patel, Anuja H.	San Jose	CA	US	

US-CL-CURRENT: 606/200

ABSTRACT:

Cold worked nickel-titanium alloys that have linear pseudoelastic behavior without a phase transformation or onset of stress-induced martensite as applied to a medical device having a strut formed body deployed from a sheath is disclosed. In one application, an embolic protection device that employs a linear pseudoelastic nitinol self-expanding strut assembly with a small profile delivery system for use with interventional procedures is disclosed. Linear pseudoelastic nitinol is used in the medical device as distinct from non-linear pseudoelastic (i.e., superelastic) nitinol. The expandable strut assembly is made from a small diameter tubing of cold worked nickel-titanium alloys. The self-expanding struts that deploy the filter element is laser cut from a large diameter cold worked nickel-titanium alloy, then joined to the small diameter tubing.

☐ 27. Document ID: US 20020161389 A1

L1: Entry 27 of 82 File: PGPB Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020161389
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020161389 A1

TITLE: Deployment and recovery control systems for embolic protection devices

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Fallbrook	CA	US	
Huter, Benjamin C.	Murrieta	CA	US	
Peterson, Charles R.	Murrieta	CA	US	
Schwarten, Donald E.	Saratoga	CA	US	
Stack, Richard S.	Chapel Hill	NC	US	

US-CL-CURRENT: 606/200

ABSTRACT:

A deployment control system provides controlled deployment of an embolic protection

device which may include a guide wire, an expandable filter attached to the guide wire near its distal end, and a restraining sheath that maintains the expanded filter in a collapsed position. The deployment control system includes a torque control device which allows the physician to torque the guide wire into the patient's anatomy and a mechanism for preventing the guide wire from buckling as the restraining sheath is being retracted to deploy the expandable filter. A recovery control system for recovering the embolic protection device includes an inner catheter which extends within a lumen of an outer recovery sheath in a coaxial arrangement. A distal portion of the inner catheter extends beyond another recovery sheath during advancement of the recovery system into the vasculature. The recovery sheath can be advanced over the inner catheter to collapse the expandable filter. The proximal ends of the inner catheter and recovery sheath include handle portions having snap mechanisms which hold the components together as the recovery system is being advanced into the patient's vasculature.

☐ 28. Document ID: US 20020160416 A1

L1: Entry 28 of 82 File: PGPB Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020160416
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020160416 A1

TITLE: Receptor from TNF family

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Moorpark	CA	US	
Hsu, Hailing	Moorpark	CA	US	

US-CL-CURRENT: 435/7.1; 530/389.1, 530/395, 536/53

ABSTRACT:

A member of the tumor necrosis factor family and its receptor are described. This member is primarily expressed in B cells and its expression correlates to increases in the number of B cells and immunoglobulins produced. The natural, preferred human ortholog is here called AGP-3R. The protein is a type III transmembrane protein and has an amino terminal extracellular domain, a transmembrane domain, and a carboxy terminal intracellular domain. AGP-3R-related proteins of the invention may be membrane-associated or in soluble form, recombinantly produced or isolated after natural production. The invention provides for nucleic acids encoding such AGP-3R-related proteins, vectors and host cells expressing the polypeptides, and methods for producing recombinant proteins. Antibodies or fragments thereof that specifically bind the proteins are also provided.

☐ 29. Document ID: US 20010049499 A1

L1: Entry 29 of 82 File: PGPB Dec 6, 2001

PGPUB-DOCUMENT-NUMBER: 20010049499
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010049499 A1

TITLE: Splittable medical valve

PUBLICATION-DATE: December 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lui, Chun Kee	Monroeville	PA	US	
Boyle, William J.	Lower Burrell	PA	US	

US-CL-CURRENT: 604/164.05; 604/167.04

ABSTRACT:

A splittable medical valve is disclosed that is configured with a interfacing region that permits the valve to be placed over or inside of a tubular medical device, such as a splittable introducer sheath, to prevent loss of bodily fluids and/or reduce ingress of air-borne pathogens. The valve further includes a sealing element configured to accept passage of a medical device, such as a catheter, sheath, pacemaker lead, or other ancillary device therethrough, whereby the valve body is split along one or more lines or fissure to allow removal of the valve from around the ancillary device.

☐ 30. Document ID: US 20010037126 A1

L1: Entry 30 of 82 File: PGPB Nov 1, 2001

PGPUB-DOCUMENT-NUMBER: 20010037126
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010037126 A1

TITLE: Stent delivery catheter and method of use

PUBLICATION-DATE: November 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Stack, Richard S.	Chapel Hill	NC	US	
Patel, Udayan G.	San Jose	CA	US	
Boyle, William J.	Temecula	CA	US	
Stalker, Kent C.B.	San Marcos	CA	US	
Muller, Paul F.	San Carlos	CA	US	

US-CL-CURRENT: 606/191; 623/1.11

ABSTRACT:

A deformable sheath is attached to a catheter and introduced intravascularly to be

expanded against an arterial wall and entrap plaque therebetween. A stent is subsequently deployed within the expanded sheath and the sheath is then withdrawn from within the vasculature to leave the stent expanded against the arterial wall with the plaque entrapped therebetween.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 31. Document ID: US 6712791 B2

L1: Entry 31 of 82 File: USPT Mar 30, 2004

US-PAT-NO: 6712791
DOCUMENT-IDENTIFIER: US 6712791 B2
**** See image for Certificate of Correction ****

TITLE: Splittable medical valve

DATE-ISSUED: March 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lui; Chun Kee	Monroeville	PA		
Boyle; William J.	Lower Burrell	PA		

US-CL-CURRENT: 604/167.04; 604/160

ABSTRACT:

A splittable medical valve is disclosed that is configured with a interfacing region that permits the valve to be placed over or inside of a tubular medical device, such as a splittable introducer sheath, to prevent loss of bodily fluids and/or reduce ingress of air-borne pathogens. The valve further includes a sealing element configured to accept passage of a medical device, such as a catheter, sheath, pacemaker lead, or other ancillary device therethrough, whereby the valve body is split along one or more lines or fissure to allow removal of the valve from around the ancillary device.

30 Claims, 35 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 8

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw. Des

☐ 32. Document ID: US 6702834 B1

L1: Entry 32 of 82 File: USPT Mar 9, 2004

US-PAT-NO: 6702834
DOCUMENT-IDENTIFIER: US 6702834 B1

TITLE: Embolic protection devices

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boylan; John F.	Murrieta	CA		
Boyle; William J.	Fallbrook	CA		
Denison; Andy E.	Temecula	CA		
Dutta; Debashis	Santa Clara	CA		
Huter; Benjamin C.	Murrieta	CA		
Huter; Scott J.	Temecula	CA		
Muller; Paul F.	San Carlos	CA		
Patel; Samir	Del Mar	CA		
Tarapata; Christopher J.	Santa Clara	CA		
Wang; Chicheng	Highland Park	NJ		
Sanchez; Francisco	Temecula	CA		
Stalker; Kent C. B.	San Marcos	CA		

US-CL-CURRENT: 606/200; 604/106, 606/127, 606/159

ABSTRACT:

An embolic protection device for use in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region to capture any embolic material which may be created and released into the bloodstream during the procedure. The device includes a filtering assembly having a self-expanding strut assembly and a filter element attached thereto. In one embodiment, the filtering assembly is attached to the distal end of a guide wire and is deployed within the patient's vasculature as the guide wire is manipulated into the area of treatment. A restraining sheath placed over the filtering assembly in a coaxial arrangement maintains the filtering assembly in its collapsed position until it is ready to be deployed by the physician. Thereafter, the sheath can be retracted to expose the filtering assembly which will then self-expand within the patient's vasculature. Interventional devices can be delivered over the guide wire and any embolic debris created during the interventional procedure and released into the blood stream will enter the filtering assembly and be captured therein. Other embodiments include filtering assemblies attached to an outer tubular member and inner shaft member which apply axial force to the distal ends of the assembly to either expand or contract the struts as needed.

8 Claims, 64 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 30

☐ 33. Document ID: US 6695813 B1

L1: Entry 33 of 82 File: USPT Feb 24, 2004

US-PAT-NO: 6695813
DOCUMENT-IDENTIFIER: US 6695813 B1

TITLE: Embolic protection devices

DATE-ISSUED: February 24, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Burkett; David H.	San Diego	CA		
Denison; Andy E.	Temecula	CA		
Huter; Benjamin C.	Murrieta	CA		
Huter; Scott J.	Temecula	CA		
Kokish; Arkady	Los Gatos	CA		
Stalker; Kent C. B.	San Marcos	CA		
Wang; Chicheng	Sunnyvale	CA		
Whitfield; John D.	Temecula	CA		

US-CL-CURRENT: 604/106; 606/198, 606/200

ABSTRACT:

An embolic protection device includes a filtering assembly having a self-expanding strut assembly and a filter element. The filtering assembly can be attached to a guidewire and deployed within the patient's vasculature into an area of treatment. A restraining sheath maintains the filtering assembly in its collapsed position until it is ready to be deployed by the physician. Interventional devices can be delivered over the guidewire and any embolic debris created and released into the blood stream will enter the filtering assembly. The filtering assembly can be rotatably mounted on the guide wire and may include a dampening element which helps to prevent some shock force that may be transmitted along the guide to the deployed filtering assembly.

35 Claims, 45 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 21

☐ 34. Document ID: US 6679902 B1

L1: Entry 34 of 82 File: USPT Jan 20, 2004

US-PAT-NO: 6679902
DOCUMENT-IDENTIFIER: US 6679902 B1
**** See image for Certificate of Correction ****

TITLE: Reduced profile delivery sheath for use in interventional procedures

DATE-ISSUED: January 20, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Denison; Andy E.	Temecula	CA		
Huter; Benjamin C.	Murrieta	CA		

US-CL-CURRENT: 606/200

ABSTRACT:

A delivery sheath is provided for deploying a self-expanding intravascular filter.

The sheath includes a stiff proximal portion which provides for good pushability and trackability through tortuous vessels and a soft, flexible, low profile, radiopaque distal tip for holding and delivering a deployable filter. The soft distal tip minimizes the formation of embolic particles that may be produced by contact between the sheath and an arterial lesion. The distal tip may be molded from a polymer containing radiopaque particles held in suspension and thereby provides for good visualization under fluroscopy.

28 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

☐ 35. Document ID: US 6656351 B2

L1: Entry 35 of 82 File: USPT Dec 2, 2003

US-PAT-NO: 6656351
DOCUMENT-IDENTIFIER: US 6656351 B2
**** See image for Certificate of Correction ****

TITLE: Embolic protection devices one way porous membrane

DATE-ISSUED: December 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		

US-CL-CURRENT: 210/136; 210/251, 210/359, 606/194, 606/200

ABSTRACT:

An embolic protection device for use in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region to capture any embolic material which may be created and released into the bloodstream during the procedure. The device includes a filtering assembly having a self-expanding strut assembly and a filter element attached thereto. The filtering assembly is capable of allowing controlled backwards flow of blood through the filter assembly, or blocking the backwards flow entirely, during aspiration of embolic material trapped within the filter assembly.

34 Claims, 61 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 28

☐ 36. Document ID: US 6645223 B2

L1: Entry 36 of 82 File: USPT Nov 11, 2003

US-PAT-NO: 6645223

DOCUMENT-IDENTIFIER: US 6645223 B2
**** See image for Certificate of Correction ****

TITLE: Deployment and recovery control systems for embolic protection devices

DATE-ISSUED: November 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Huter; Benjamin C.	Murrieta	CA		
Peterson; Charles R.	Murrieta	CA		
Schwarten; Donald E.	Saratoga	CA		
Stack; Richard S.	Chapel Hill	NC		

US-CL-CURRENT: 606/200

ABSTRACT:

A deployment control system provides controlled deployment of an embolic protection device which may include a guide wire, an expandable filter attached to the guide wire near its distal end, and a restraining sheath that maintains the expanded filter in a collapsed position. The deployment control system includes a torque control device which allows the physician to torque the guide wire into the patient's anatomy and a mechanism for preventing the guide wire from buckling as the restraining sheath is being retracted to deploy the expandable filter. A recovery control system for recovering the embolic protection device includes an inner catheter which extends within a lumen of an outer recovery sheath in a coaxial arrangement. A distal portion of the inner catheter extends beyond another recovery sheath during advancement of the recovery system into the vasculature. The recovery sheath can be advanced over the inner catheter to collapse the expandable filter. The proximal ends of the inner catheter and recovery sheath include handle portions having snap mechanisms which hold the components together as the recovery system is being advanced into the patient's vasculature.

34 Claims, 11 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 7

☐ 37. Document ID: US 6613544 B1

L1: Entry 37 of 82 File: USPT Sep 2, 2003

US-PAT-NO: 6613544
DOCUMENT-IDENTIFIER: US 6613544 B1

TITLE: Osteoprotegerin

DATE-ISSUED: September 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

Lacey; David L.	Thousand Oaks	CA
Calzone; Frank J.	Pine Crest Circle	CA
Chang; Ming-Shi	Newbury Park	CA

US-CL-CURRENT: 435/69.1; 435/252.3, 435/252.33, 435/320.1, 435/325, 436/504, 530/350, 536/23.1, 536/23.4, 536/23.5

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed Osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding Osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind Osteoprotegerin, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

13 Claims, 50 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 26

☐ 38. Document ID: US 6582448 B1

L1: Entry 38 of 82 File: USPT Jun 24, 2003

US-PAT-NO: 6582448
DOCUMENT-IDENTIFIER: US 6582448 B1

TITLE: Vessel occlusion device for embolic protection system

DATE-ISSUED: June 24, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Denison; Andy E.	Temecula	CA		

US-CL-CURRENT: 606/200

ABSTRACT:

A system used in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region, which is capable of capturing embolic material which may be released into a blood vessel during a therapeutic interventional procedure at the site of a lesion in the blood vessel. The system is adapted to be utilized in a collateral blood supply system adapted to enable the flow of blood to bypass the blood vessel upon blocking thereof and to enable the reverse flow of blood through the blood vessel upon unblocking thereof. The system includes a guide wire, including a distal end, adapted to be positioned in a blood vessel relative to an interventional procedure site. A guide catheter, including a distal end, is adapted to enable the interventional procedure to be performed, and to be inserted over the guide wire and through a patient's vasculature to a position in the blood vessel relative to the interventional procedure site. An occluding device for occluding and blocking a blood vessel at a location relative to the interventional procedure site

is adapted to be positionable at a location relative to he interventional procedure site, to be expandable so as to prevent and block the flow of blood past the occlusion, and to enable the capture of embolic material which may be released into the blood in the blood vessel during the therapeutic interventional procedure, and to be contracted to unblock the blood vessel and enable the recovery of captured embolic material.

19 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

☐ 39. Document ID: US 6562049 B1

L1: Entry 39 of 82 File: USPT May 13, 2003

US-PAT-NO: 6562049
DOCUMENT-IDENTIFIER: US 6562049 B1

TITLE: Medical introducer apparatus

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Norlander; Barry E.	Pittsburgh	PA		
Boyle; William J.	Lower Burrell	PA		

US-CL-CURRENT: 606/108

ABSTRACT:

An introducer apparatus (10) comprising a pair of co-extending splittable introducer sheaths (11), (12) is disclosed. The unique properties (pushability, torqueability, length, shape, etc.) of the individual introducer sheaths yields an introducer apparatus with the additional navigational flexibility to reach a remote target that whose access would be more difficult or impossible with a single introducer sheath. One embodiment include a coaxial pair of introducer sheaths made of made of molecularly oriented (non-isotropic) polytetrafluoroethylene PTFE which are used for placement of a pacemaker or defibrillator lead into the coronary sinus. In this embodiment, the first introducer sheath (11) is introduced over a wire guide into ostium of the coronary sinus, which represents the first target site. The outer introducer sheath includes preformed bends (20) to facilitate passage through the vasculature. A second introducer sheath (12), which includes a curved distal portion (17), is introduced through the first introducer where it extends from the distal end of the outer introducer sheath to access the second, ultimate target site, such as a coronary artery branching from the coronary sinus. After the pacemaker lead has been placed, both sheaths are split and removed from the patient.

33 Claims, 21 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 5

☐ 40. Document ID: US 6551341 B2

L1: Entry 40 of 82 File: USPT Apr 22, 2003

US-PAT-NO: 6551341
DOCUMENT-IDENTIFIER: US 6551341 B2
**** See image for Certificate of Correction ****

TITLE: Devices configured from strain hardened Ni Ti tubing

DATE-ISSUED: April 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boylan; John F.	Murrieta	CA		
Boyle; William J.	Fallbrook	CA		
Papp; John E.	Temecula	CA		
Patel; Anuja H.	San Jose	CA		

US-CL-CURRENT: 606/200

ABSTRACT:

Cold worked nickel-titanium alloys that have linear pseudoelastic behavior without a phase transformation or onset of stress-induced martensite as applied to a medical device having a strut formed body deployed from a sheath is disclosed. In one application, an embolic protection device that employs a linear pseudoelastic nitinol self-expanding strut assembly with a small profile delivery system for use with interventional procedures is disclosed. Linear pseudoelastic nitinol is used in the medical device as distinct from non-linear pseudoelastic (i.e., superelastic) nitinol. The expandable strut assembly is made from a small diameter tubing of cold worked nickel-titanium alloys. The self-expanding struts that deploy the filter element is laser cut from a large diameter cold worked nickel-titanium alloy, then joined to the small diameter tubing.

21 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

☐ 41. Document ID: US 6540722 B1

L1: Entry 41 of 82 File: USPT Apr 1, 2003

US-PAT-NO: 6540722
DOCUMENT-IDENTIFIER: US 6540722 B1
**** See image for Certificate of Correction ****

TITLE: Embolic protection devices

DATE-ISSUED: April 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Denison; Andy E.	Temecula	CA		
Huter; Benjamin C.	Murrieta	CA		
Huter; Scott J.	Temecula	CA		
Stack; Richard S.	Chapel Hill	NC		
Stalker; Kent C. B.	San Marcos	CA		
Tarapata; Christopher	Santa Clara	CA		
Whitfield; John D.	Temecula	CA		

US-CL-CURRENT: 604/106; 604/104, 606/198, 606/200

ABSTRACT:

An embolic protection device for use in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region to capture any embolic material which may be created and released into the bloodstream during the procedure. The device includes a filtering assembly having a self-expanding strut assembly and a filter element attached thereto. In one embodiment, the filtering assembly is attached to the distal end of a guide wire and is deployed within the patient's vasculature as the guide wire is manipulated into the area of treatment. A restraining sheath placed over the filtering assembly in a coaxial arrangement maintains the filtering assembly in its collapsed position until it is ready to be deployed by the physician. Thereafter, the sheath can be retracted to expose the filtering assembly which will then self-expand within the patient's vasculature. Interventional devices can be delivered over the guide wire and any embolic debris created during the interventional procedure and released into the blood stream will enter the filtering assembly and be captured therein. Other embodiments include filtering assemblies attached to an outer tubular member and inner shaft member which apply axial force to the distal ends of the assembly to either expand or contract the struts as needed.

57 Claims, 51 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 24

☐ 42. Document ID: US 6537294 B1

L1: Entry 42 of 82 File: USPT Mar 25, 2003

US-PAT-NO: 6537294
DOCUMENT-IDENTIFIER: US 6537294 B1

TITLE: Delivery systems for embolic filter devices

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Huter; Benjamin C.	Murrieta	CA		
Huter; Scott J.	Temecula	CA		

US-CL-CURRENT: 606/200

ABSTRACT:

A delivery system for an expandable filter device includes a dual lumen delivery sheath which has a lumen for receiving the expandable filter device and a lumen for receiving a primary guide wire. The primary guide wire is utilized to place the delivery sheath and expandable filter into the desired region of the patient's vasculature via an over-the-wire or rapid-exchange arrangement. The delivery sheath can be protracted over the expandable filter device to allow the filter to be deployed within the patient's vasculature at the desired location. The delivery system can be embodied in an alternative design in which the primary guide wire extends through a guide wire lumen located in an obturator which forms part of the expandable filter device. Again, the primary guide wire is utilized to maneuver the filter device into the desired area via an over-the-wire arrangement. A slit extending longitudinally along the length of the sheath facilitates the removal of the guide wire and delivery sheath from the patient's vasculature.

32 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 7

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWMC | Draw Des

☐ 43. Document ID: US 6506203 B1

L1: Entry 43 of 82 File: USPT Jan 14, 2003

US-PAT-NO: 6506203
DOCUMENT-IDENTIFIER: US 6506203 B1

TITLE: Low profile sheathless embolic protection system

DATE-ISSUED: January 14, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Stack; Richard S.	Chapel Hill	NC		

US-CL-CURRENT: 606/200

ABSTRACT:

A system used in a blood vessel when an interventional procedure is being performed in a stenosed or occluded region, which is capable of enabling a support device and filter supported thereon, to be inserted into the blood vessel and to cross the stenosis therein in a low profile without a sheath extending thereabout. The filter is adapted to filter the blood in the blood vessel. The system is further capable of enabling the support device and filter to be positioned distal to the interventional procedure site, and to be activated to expand at the distal location so as to enable the filter to capture any embolic material that may be created and released into the bloodstream during the interventional procedure. The system is also capable of enabling the support device and filter to be activated to contract to a return profile for enabling the filter to retain the embolic material captured therein and the removal of the support device and filter from the blood vessel. The system includes a filter, adapted to be deployed distal to the interventional procedure

site, and to pass blood therethrough and capture embolic material which may be released into the blood in the blood vessel during the interventional procedure. A support device is adapted to support the filter, and to retain a low profile so as to enable the filter to be inserted into and cross the stenosis in the blood vessel, to a position distal to the interventional procedure site, without a sheath extending about the filter and the support device. The support device is further adapted to deform for expansion thereof into open position to enable the filter to capture embolic material, and to enable the collapsing thereof to retain the embolic material captured in the filter, and to enable removal of the support device and the filter. The system also includes a mechanism, connected to the support device, adapted to be activated so as to enable the support device to deform for expansion thereof.

25 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

☐ 44. Document ID: US 6479250 B1

L1: Entry 44 of 82 File: USPT Nov 12, 2002

US-PAT-NO: 6479250
DOCUMENT-IDENTIFIER: US 6479250 B1

TITLE: Eck receptor ligands

DATE-ISSUED: November 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bartley; Timothy D.	Thousand Oaks	CA		
Boyle; William J.	Moorpark	CA		
Fox; Gary M.	Newbury Park	CA		
Welcher; Andrew A.	Glendale	CA		
Magal; Ella	Thousand Oaks	CA		
Lindberg; Richard A.	Thousand Oaks	CA		
Parker; Vann P.	Newbury Park	CA		

US-CL-CURRENT: 435/15

ABSTRACT:

Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor and disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

9 Claims, 19 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 14

☐ 45. Document ID: US 6369027 B1

L1: Entry 45 of 82 File: USPT Apr 9, 2002

US-PAT-NO: 6369027
DOCUMENT-IDENTIFIER: US 6369027 B1

TITLE: Osteoprotegerin

DATE-ISSUED: April 9, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		
Lacey; David L.	Thousand Oaks	CA		
Calzone; Frank J.	Westlake Village	CA		
Chang; Ming-Shi	Newbury Park	CA		

US-CL-CURRENT: 514/2; 435/320.1, 435/69.1, 514/12, 530/350, 530/387.1, 536/23.5, 536/23.51

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind OPG, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

19 Claims, 82 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 44

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc

☐ 46. Document ID: US 6316408 B1

L1: Entry 46 of 82 File: USPT Nov 13, 2001

US-PAT-NO: 6316408
DOCUMENT-IDENTIFIER: US 6316408 B1
**** See image for Certificate of Correction ****

TITLE: Methods of use for osetoprotegerin binding protein receptors

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

US-CL-CURRENT: 514/12; 530/350

ABSTRACT:

A novel polypeptide, osteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

Receptors for osteoprotegerin binding proteins are also described. The receptors, and agonists and antagonists thereof, may be used to treat bone diseases.

9 Claims, 45 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 30

☐ 47. Document ID: US 6306106 B1

L1: Entry 47 of 82 File: USPT Oct 23, 2001

US-PAT-NO: 6306106
DOCUMENT-IDENTIFIER: US 6306106 B1
**** See image for Certificate of Correction ****

TITLE: Diagnostic sheath for reduced embolic risk

DATE-ISSUED: October 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Santa Clara	CA		

US-CL-CURRENT: 600/585; 600/434

ABSTRACT:

This invention is directed to a diagnostic sheath device which is adapted to facilitate atraumatic navigation of intravascular catheters along vascular pathways. The sheath consists of an elongated flexible shaft, having a proximal end and a distal end. The distal end of the shaft is hemispherically-shaped or elongated. A guide wire lumen extends through the shaft, from the proximal end to the distal end, for receiving a guide wire. At least one dye-injection lumen extends through the elongated shaft from the proximal end and joins the guide wire lumen at a point near the distal end of the shaft to provide fluid communication between the injection lumen and the guide wire lumen. The shaft is slidably inserted through the hollow interior of a guide catheter so that the hemispherically-shaped or elongated distal end of the shaft extends beyond the distal end of the guide catheter. Thus, the hemispherically-shaped or elongated distal end cooperates with the guide catheter body to provide a smooth rounded catheter tip which, when advanced along the patient's vasculature, reduces the risk of causing trauma to the blood vessel, freeing plaque from the vessel wall, or creating embolisms in the bloodstream.

10 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw. Desc

☐ 48. Document ID: US 6290656 B1

L1: Entry 48 of 82 File: USPT Sep 18, 2001

US-PAT-NO: 6290656
DOCUMENT-IDENTIFIER: US 6290656 B1

TITLE: Guide wire with damped force vibration mechanism

DATE-ISSUED: September 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Fallbrook	CA		
Muller; Paul F.	San Carlos	CA		

US-CL-CURRENT: 600/585

ABSTRACT:

A guide wire having a damped force vibration mechanism which isolates vibrations or shockwaves which otherwise would be transmitted along the length of the guide wire to its distal end. The damped force vibration mechanism helps absorb some of the energy created during the exchange of a delivery catheter or an interventional device on the guide wire or any shock or force generated from an external source. The damped force vibration mechanism absorbs vibrations or shock which would otherwise act on medical devices attached near the distal end of a guide wire. The damped force vibration mechanism may consist of a reduced segment on the guide wire which can be made from a material such as superelastic or plastically deformable, biocompatible materials. The damped force vibration mechanism can have a relatively straight configuration or can have a wave-shaped form, or other shape which helps absorb vibratory motion.

54 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw. Desc

☐ 49. Document ID: US 6288032 B1

L1: Entry 49 of 82 File: USPT Sep 11, 2001

US-PAT-NO: 6288032
DOCUMENT-IDENTIFIER: US 6288032 B1
**** See image for Certificate of Correction ****

TITLE: Osteoprotegerin

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		
Lacey; David L.	Thousand Oaks	CA		
Calzone; Frank J.	Westlake Village	CA		
Chang; Ming-Shi	Newbury Park	CA		

US-CL-CURRENT: 514/12; 435/69.1, 435/69.4, 435/69.5, 435/69.7, 514/2, 530/350, 530/351, 530/402

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed Osteoprotegerin, which is a member of the tumor necrosis factor receptor super family and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding Osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind Osteoprotegerin, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

14 Claims, 53 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 26

☐ 50. Document ID: US 6284740 B1

L1: Entry 50 of 82 File: USPT Sep 4, 2001

US-PAT-NO: 6284740
DOCUMENT-IDENTIFIER: US 6284740 B1
**** See image for Certificate of Correction ****

TITLE: Osteoprotegerin

DATE-ISSUED: September 4, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		
Lacey; David L.	Thousand Oaks	CA		
Calzone; Frank J.	Westlake Village	CA		
Chang; Ming-Shi	Newbury Park	CA		

US-CL-CURRENT: 514/44; 424/93.6, 435/320.1, 536/23.5, 800/8

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed Osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding Osteoprotegerin, polypeptides, recombinant vectors and host cells for expression,

antibodies which bind Osteoprotegerin, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

20 Claims, 53 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 26

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Des

☐ 51. Document ID: US 6284728 B1

L1: Entry 51 of 82 File: USPT Sep 4, 2001

US-PAT-NO: 6284728
DOCUMENT-IDENTIFIER: US 6284728 B1

TITLE: Osteoprotegerin

DATE-ISSUED: September 4, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		
Lacey; David L.	Thousand Oaks	CA		
Calzone; Frank J.	Westlake Village	CA		
Chang; Ming-Shi	Newbury Park	CA		

US-CL-CURRENT: 514/12; 435/69.1, 435/69.4, 435/69.5, 435/69.7, 514/2, 530/350, 530/351, 530/402

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed Osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding Osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind Osteoprotegerin, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

9 Claims, 53 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 26

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Des

☐ 52. Document ID: US 6284485 B1

L1: Entry 52 of 82 File: USPT Sep 4, 2001

US-PAT-NO: 6284485
DOCUMENT-IDENTIFIER: US 6284485 B1
**** See image for Certificate of Correction ****

TITLE: Nucleic acids encoding osteoprotegerin

DATE-ISSUED: September 4, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		
Lacey; David L.	Thousand Oaks	CA		
Calzone; Frank J.	Westlake Village	CA		
Chang; Ming-Shi	Newbury Park	CA		

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1, 435/325, 435/357, 435/358, 435/360, 435/364, 435/365, 435/365.1, 435/371 , 435/69.4, 435/69.5, 536/23.5, 536/23.51

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed Osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding Osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind Osteoprotegerin, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

16 Claims, 53 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 26

☐ 53. Document ID: US 6264671 B1

L1: Entry 53 of 82 File: USPT Jul 24, 2001

US-PAT-NO: 6264671
DOCUMENT-IDENTIFIER: US 6264671 B1

TITLE: Stent delivery catheter and method of use

DATE-ISSUED: July 24, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stack; Richard S.	Chapel Hill	NC		
Patel; Udayan	San Jose	CA		
Boyle; William J.	Temecula	CA		
Stalker; Kent C. B.	San Marcos	CA		
Muller; Paul F.	San Carlos	CA		

US-CL-CURRENT: 606/198; 606/191, 606/194

ABSTRACT:

A deformable sheath is attached to a catheter and introduced intravascularly to be

expanded against an arterial wall and entrap plaque therebetween. A stent is subsequently deployed within the expanded sheath and the sheath is then withdrawn from within the vasculature to leave the stent expanded against the arterial wall with the plaque entrapped therebetween.

29 Claims, 12 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Desc

☐ 54. Document ID: US 6139511 A

L1: Entry 54 of 82 File: USPT Oct 31, 2000

US-PAT-NO: 6139511
DOCUMENT-IDENTIFIER: US 6139511 A

TITLE: Guidewire with variable coil configuration

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Huter; Scott J.	Temecula	CA		
Boyle; William J.	Temecula	CA		
Stack; Richard S.	Chapel Hill	NC		

US-CL-CURRENT: 600/585; 604/96.01

ABSTRACT:

The present invention is directed to a guidewire having an elongate core member with a proximal section and a distal section. The distal section has at least one tapered segment, wherein the elongate core member tapers distally to a reduced diameter. Preferably, the tapered segments of the distal section of the elongate core member are marked with radiopaque markers to indicate where a tapered segment begins or ends. A proximal coil having a rectangular cross section and at least one distal coil having a round cross section are disposed around at least a portion of the distal section of the elongate core member. The proximal end of the proximal coil is attached to the distal section of the elongate core member. The distal coils can be made of a material that is radiopaque or non-radiopaque. If one of the distal coils is radiopaque, it may be made from a radiopaque material or it may be made of a hollow tube of non-radiopaque material that is filled with material that is at least partially radiopaque. The proximal end of the distal most coil is attached to the distal end of the proximal coil, and the distal end of the distal most coil is attached to the distal section of the elongate core member.

21 Claims, 8 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Desc

☐ 55. Document ID: US 6136023 A

L1: Entry 55 of 82 File: USPT Oct 24, 2000

US-PAT-NO: 6136023
DOCUMENT-IDENTIFIER: US 6136023 A

TITLE: Welded sinusoidal wave stent

DATE-ISSUED: October 24, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Temecula	CA		

US-CL-CURRENT: 623/1.22; 623/1.15

ABSTRACT:

A wire stent having a preformed series of peaks alternating with valleys. The wire is formed from a malleable or resilient material and can be wound into a continuous helix. Each pair of peaks and valleys constitutes a wave. The stent has a number of waves per circumferential revolution such that the adjoining waves align off-peak to off-valley with one or more such adjoining waves being affixed to each other at the off-peak to off-valley locations. The waves can be welded at all locations or only at the circumferential revolutions at the proximal and distal ends of the stent, or intermittently, or in barber pole fashion or along one or more longitudinal axes.

22 Claims, 7 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

☐ 56. Document ID: US 6087167 A

L1: Entry 56 of 82 File: USPT Jul 11, 2000

US-PAT-NO: 6087167
DOCUMENT-IDENTIFIER: US 6087167 A
**** See image for Certificate of Correction ****

TITLE: Eck receptor ligands

DATE-ISSUED: July 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bartley; Timothy D.	Thousand Oaks	CA		
Boyle; William J.	Moorpark	CA		
Fox; Gary M.	Newbury Park	CA		
Welcher; Andrew A.	Glendale	CA		
Magal; Ella	Thousand Oaks	CA		
Lindberg; Richard A.	Thousand Oaks	CA		

Parker; Vann P. Newbury Park CA

US-CL-CURRENT: 435/325; 435/353, 435/366, 435/368, 514/12

ABSTRACT:

Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor and disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

7 Claims, 19 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 14

☐ 57. Document ID: US 6015938 A

L1: Entry 57 of 82 File: USPT Jan 18, 2000

US-PAT-NO: 6015938
DOCUMENT-IDENTIFIER: US 6015938 A
**** See image for Certificate of Correction ****

TITLE: Osteoprotegerin

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		
Lacey; David L.	Thousand Oaks	CA		
Calzone; Frank J.	Westlake Village	CA		
Chang; Ming-Shi	Newbury Park	CA		

US-CL-CURRENT: 800/18; 800/14

ABSTRACT:

The present invention discloses a novel secreted polypeptide, termed Osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding Osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind Osteoprotegerin, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

2 Claims, 53 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 26

☐ 58. Document ID: US 5913896 A

L1: Entry 58 of 82 File: USPT Jun 22, 1999

US-PAT-NO: 5913896
DOCUMENT-IDENTIFIER: US 5913896 A

TITLE: Interwoven dual sinusoidal helix stent

DATE-ISSUED: June 22, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Carlsbad	CA		
Wong; Rosalinda A.	San Diego	CA		
Shy; James M.	Chula Vista	CA		

US-CL-CURRENT: 623/1.15; 128/898, 606/108, 606/191, 606/192, 606/194, 606/195, 606/198, 623/1.34, 623/901

ABSTRACT:

A method and apparatus for a radially expandable stent for implantation within a body vessel, comprising a first and second wire having a series of alternating peaks and valleys. The valleys of the first wire are braided with the peaks of the second wire forming a braided region with the interwoven first and second wire being wound into a continuous helix having a hollow cylindrical shape. The peaks of the first wire of the continuous helix may be welded to the adjacent valleys of the second wire of the continuous helix. The peaks and valleys of the first wire may symmetrically intersect with the peaks and valleys of the second wire to form a uniform series of crossings thereby permitting even expansion of the first and second wires. The proximal end of the first wire may be attached to the proximal end of the second wire. The distal end of the first wire may be attached to the distal end of the second wire. A means within the interwoven first and second wires of the continuous helix may be included for expansion thereof.

27 Claims, 9 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

☐ 59. Document ID: US 5843678 A

L1: Entry 59 of 82 File: USPT Dec 1, 1998

US-PAT-NO: 5843678
DOCUMENT-IDENTIFIER: US 5843678 A

TITLE: Osteoprotegerin binding proteins

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

US-CL-CURRENT: 435/7.1; 514/2, 530/300, 530/350

ABSTRACT:

A novel polypeptide, osteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

15 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

☐ 60. Document ID: US 5824303 A

L1: Entry 60 of 82 File: USPT Oct 20, 1998

US-PAT-NO: 5824303
DOCUMENT-IDENTIFIER: US 5824303 A
**** See image for Certificate of Correction ****

TITLE: Eck receptor ligands

DATE-ISSUED: October 20, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bartley; Timothy D.	Thousand Oaks	CA		
Boyle; William J.	Moorpark	CA		
Fox; Gary M.	Newbury Park	CA		
Welcher; Andrew A.	Glendale	CA		
Magal; Ella	Thousand Oaks	CA		
Lindberg; Richard A.	Thousand Oaks	CA		
Parker; Vann P.	Newbury Park	CA		

US-CL-CURRENT: 424/94.5; 435/194, 514/12, 514/886, 514/893

ABSTRACT:

Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor and disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

8 Claims, 19 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 14

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Des

☐ 61. Document ID: US 5716934 A

L1: Entry 61 of 82 File: USPT Feb 10, 1998

US-PAT-NO: 5716934
DOCUMENT-IDENTIFIER: US 5716934 A

TITLE: Eck receptor ligands

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bartley; Timothy D.	Thousand Oaks	CA		
Boyle; William J.	Moorpark	CA		
Parker; Vann P.	Newbury Park	CA		
Fox; Gary M.	Newbury Park	CA		
Welcher; Andrew A.	Glendale	CA		

US-CL-CURRENT: 514/12; 510/499, 514/21, 530/350

ABSTRACT:

Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor and disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

17 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 9

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Des

☐ 62. Document ID: US 5650504 A

L1: Entry 62 of 82 File: USPT Jul 22, 1997

US-PAT-NO: 5650504
DOCUMENT-IDENTIFIER: US 5650504 A

TITLE: Nucleic acids encoding eck receptor ligands

DATE-ISSUED: July 22, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bartley; Timothy D.	Thousand Oaks	CA		
Boyle; William J.	Moorpark	CA		
Parker; Vann P.	Newbury Park	CA		
Fox; Gary M.	Newbury Park	CA		
Welcher; Andrew A.	Glendale	CA		

US-CL-CURRENT: 536/23.5; 435/252.1, 435/252.33, 435/320.1, 435/325, 435/358, 435/69.1, 435/7.1, 530/300, 530/350, 536/23.1

ABSTRACT:

Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor and disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

6 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 9

☐ 63. Document ID: US 5628754 A

L1: Entry 63 of 82 File: USPT May 13, 1997

US-PAT-NO: 5628754
DOCUMENT-IDENTIFIER: US 5628754 A
**** See image for Certificate of Correction ****

TITLE: Stent delivery guide catheter

DATE-ISSUED: May 13, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shevlin; Michael R.	La Mesa	CA		
Shy; James M.	Chula Vista	CA		
Boyle; William J.	Carlsbad	CA		
Krejol; Paul W.	Poway	CA		
Lunn; Peter A.	Beverly	MA		

US-CL-CURRENT: 623/1.11; 606/192, 606/194, 606/195

ABSTRACT:

The present invention is for a stent delivery guide catheter to be used in percutaneous transluminal coronary angioplasty (PTCA). The stent delivery guide catheter consists of a guide catheter body having proximal and distal ends with a cylindrical outer wall and a coaxial inner wall defining a inner lumen. A bladder is formed between the inner and outer walls and is in fluid communication with an

inflation lumen. A radially expandable and compressible stent is located inside the guide catheter body and is removably attached to the inner wall in the area of the bladder. In use, a balloon catheter is slid inside the guide catheter with the balloon positioned under the stent. When the bladder is inflated, the stent is compressed radially inward and is deposited on the balloon catheter. The present invention can also be used without the stent to facilitate the exchange of an over-the-wire balloon catheter. The balloon catheter is pulled proximal to the inflatable bladder inside the guide catheter. The bladder is then inflated and compressed to hold the guidewire while the balloon catheter is exchanged.

25 Claims, 18 Drawing figures
Exemplary Claim Number: 9
Number of Drawing Sheets: 7

☐ 64. Document ID: US 5613981 A

L1: Entry 64 of 82 File: USPT Mar 25, 1997

US-PAT-NO: 5613981
DOCUMENT-IDENTIFIER: US 5613981 A
**** See image for Certificate of Correction ****

TITLE: Bidirectional dual sinusoidal helix stent

DATE-ISSUED: March 25, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Carlsbad	CA		
Wong; Rosalinda A.	San Diego	CA		
Shy; James M.	Chula Vista	CA		
Tran; Don H.	Westminster	CA		

US-CL-CURRENT: 606/198; 606/195

ABSTRACT:

A method apparatus for a radially expandable stent for implantation within a body vessel, comprising a first wire formed winding and a second wire formed winding. The first wire formed winding has a hollow cylindrical shape including a preformed pattern such as a sinusoidal wave form and being wound into a continuous helix the length of the stent. The second wire formed winding has a hollow cylindrical shape including a preformed pattern such as a sinusoidal wave form and being wound into a continuous helix the length of the stent. The second winding helix is opposite that of the first winding helix. The second winding has a greater inner diameter than the outer diameter of the first winding. The second winding is coaxial with the first winding, the pattern of the first winding symmetrically intersects with the pattern of the second winding to form a uniform series of crossings thereby permitting even expansion of the first and second windings. The proximal end of the first winding may be attached to the proximal end of the second winding. The distal end of the first winding may be attached to the distal end of the second winding. An expandable member within the first winding to expand the first and second winding is included.

23 Claims, 10 Drawing figures
Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Des

☐ 65. Document ID: US 5591198 A

L1: Entry 65 of 82 File: USPT Jan 7, 1997

US-PAT-NO: 5591198
DOCUMENT-IDENTIFIER: US 5591198 A

TITLE: Multiple sinusoidal wave configuration stent

DATE-ISSUED: January 7, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Carlsbad	CA		
Wong; Rosalinda A.	San Diego	CA		
Shy; James M.	Chula Vista	CA		

US-CL-CURRENT: 623/1.22; 606/198

ABSTRACT:

The present invention is accomplished by providing a method and apparatus for a radially expandable stent for implantation within a body vessel, comprising a large wire formed winding segment and 2 small wire formed winding segments. The large wire formed winding segment has a hollow cylindrical shape including a preformed pattern such as a sinusoidal wave form being wound into a continuous helix the length of the stent. The second and third wire formed winding segments have a hollow cylindrical shape including a preformed pattern such as a sinusoidal wave form wound into a continuous helix. The uniform pattern of the first, second and third wire segments permit uniform expansion of the stent. The second and third winding segments have more wire per unit surface area than the first winding segment. The second winding segment proximal end is attached to the distal end of the second winding segment to form a ring. The second winding segment is attached to the proximal end of the first winding segment. The third winding segment proximal end is attached to the distal end of the third winding segment to form a ring. The third winding segment is attached to the distal end of the first winding segment. The first, second and third winding segments may be formed of a unitary wire or may be formed from two or more wires. A member within the first, second and third winding segments to expand the first, second and third winding segments is included.

21 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Des

☐ 66. Document ID: US 4734091 A

L1: Entry 66 of 82 File: USPT Mar 29, 1988

US-PAT-NO: 4734091
DOCUMENT-IDENTIFIER: US 4734091 A

TITLE: Filtered manifold apparatus and method for ophthalmic irrigation

DATE-ISSUED: March 29, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Greensburg	PA		
Irish; Thomas F.	West Berlin	NJ		

US-CL-CURRENT: 604/521; 137/883, 604/248, 604/257, 604/294

ABSTRACT:

An apparatus and a method for opthalmic irrigation provide sterile, filtered irrigation fluid to the eye at high flow rates. The apparatus includes a filter capable of removing particulates on the order of 0.8 microns, and preferably as small as 0.22 microns. A distribution manifold is disclosed whereby fluid from a common reservoir may be routed sequentially to plural recipient sites.

16 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

☐ 67. Document ID: US D289687 S

L1: Entry 67 of 82 File: USPT May 5, 1987

US-PAT-NO: D289687
DOCUMENT-IDENTIFIER: US D289687 S

TITLE: Handpiece for occular irrigation and aspiration

DATE-ISSUED: May 5, 1987

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Greensburg	PA		
Irish; Thomas F.	West Berlin	NJ		

US-CL-CURRENT: D24/112

1 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

☐ 68. Document ID: US 2498392 A

L1: Entry 68 of 82 File: USPT Feb 21, 1950

US-PAT-NO: 2498392
DOCUMENT-IDENTIFIER: US 2498392 A

TITLE: Adjustable motor base

DATE-ISSUED: February 21, 1950

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
BOYLE WILLIAM J				

US-CL-CURRENT: 248/657

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWMC | Draw Desc

☐ 69. Document ID: US 2134810 A

L1: Entry 69 of 82 File: USPT Nov 1, 1938

US-PAT-NO: 2134810
DOCUMENT-IDENTIFIER: US 2134810 A

TITLE: Combined bed table and book holder

DATE-ISSUED: November 1, 1938

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
BOYLE WILLIAM J				

US-CL-CURRENT: 248/449

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWMC | Draw Desc

☐ 70. Document ID: US 1945931 A

L1: Entry 70 of 82 File: USPT Feb 6, 1934

US-PAT-NO: 1945931
DOCUMENT-IDENTIFIER: US 1945931 A

TITLE: Book stand and tray

DATE-ISSUED: February 6, 1934

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
BOYLE WILLIAM J				

US-CL-CURRENT: 248/448; 248/279.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc

☐ 71. Document ID: WO 3086289 A2

L1: Entry 71 of 82 File: EPAB Oct 23, 2003

PUB-NO: WO003086289A2
DOCUMENT-IDENTIFIER: WO 3086289 A2
TITLE: HUMAN ANTI-OPGL NEUTRALIZING ANTIBODIES AS SELECTIVE OPGL PATHWAY INHIBITORS

PUBN-DATE: October 23, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	US
MEDLOCK, EUGENE	US
SULLIVAN, JOHN K	US
ELLIOTT, ROBIN L	US
MARTIN, FRANCIS HALL	US
HUANG, HAICHUN	US

INT-CL (IPC): A61 K 0/

ABSTRACT:

CHG DATE=20040131 STATUS=O>Monoclonal antibodies and hybridomas producing them that interact with osteoprotegerin ligand (OPGL) are provided. Methods of treating osteopenic disorders by administering a pharmaceutically effective amount of antibodies to OPGL are also provided. Methods of detecting the amount of OPGL in a sample using antibodies to OPGL are further provided.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc

☐ 72. Document ID: WO 3039625 A2

L1: Entry 72 of 82 File: EPAB May 15, 2003

PUB-NO: WO003039625A2
DOCUMENT-IDENTIFIER: WO 3039625 A2
TITLE: SPLITTABLE MEDICAL VALVE

PUBN-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
LUI, CHUN-KEE	
BOYLE, WILLIAM J	

INT-CL (IPC): A61 M 0/

ABSTRACT:

CHG DATE=20040207 STATUS=O>A hemostatic valve couples to a sheath proximal hub having an inside and an outside surface. The hemostatic valve has a valve body having a proximal porting and end, and a distal portion and end. A passageway extends longitudinally through the valve body between the proximal and distal ends. A sealing element is positioned within the passageway. The distal portion of the valve body includes a pair of contact surfaces forming an annular gap receiving the sheath proximal hub of the sheath so that the contact surfaces sandwich the sheath proximal hub forming a seal on both the inside and outside surfaces of the hub. The valve body and the sheath proximal hub includes two oppositely placed longitudinal lines of fissure that allow the hub to be separated into two halves with the valve body.

☐ 73. Document ID: WO 3002713 A2

L1: Entry 73 of 82 File: EPAB Jan 9, 2003

PUB-NO: WO0003002713A2
DOCUMENT-IDENTIFIER: WO 3002713 A2
TITLE: ANTIBODIES TO OPGL

PUBN-DATE: January 9, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	
MARTIN, FRANCIS H	
CORVALAN, JOSE R	
DAVIS, GEOFFREY C	

INT-CL (IPC): C12 N 0/
EUR-CL (EPC): A61K039/395; C07K016/28

ABSTRACT:

CHG DATE=20031112 STATUS=O>Antibodies that interact with osteoprotegerin ligand (OPGL) are described. Methods of treating osteopenic disorders by administering a pharmaceutically effective amount of antibodies to OPGL are described. Methods of detecting the amount of OPGL in a sample using antibodies to OPGL are described.

☐ 74. Document ID: WO 9849305 A1

L1: Entry 74 of 82 File: EPAB Nov 5, 1998

PUB-NO: WO0009849305A1
DOCUMENT-IDENTIFIER: WO 9849305 A1
TITLE: CHIMERIC OPG POLYPEPTIDES

PUBN-DATE: November 5, 1998

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	US
WOODEN, SCOTT	US

INT-CL (IPC): C12 N 15/12; C12 N 15/62; C07 K 14/705; A61 K 38/17
EUR-CL (EPC): C07K014/705; C12N015/62

ABSTRACT:

CHG DATE=19990905 STATUS=O>Chimeric polypeptides comprising fusions of an osteoprotegerin dimerization domain to a heterologous sequence are provided. Also provided are nucleic acids encoding the polypeptides, expression vectors and host cells for their production and pharmaceutical compositions comprising the polypeptides.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Des

☐ 75. Document ID: WO 9846751 A1

L1: Entry 75 of 82 File: EPAB Oct 22, 1998

PUB-NO: WO009846751A1
DOCUMENT-IDENTIFIER: WO 9846751 A1
TITLE: OSTEOPROTEGERIN BINDING PROTEINS AND RECEPTORS

PUBN-DATE: October 22, 1998

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	US

INT-CL (IPC): C12 N 15/12; C12 N 15/11; C12 N 1/21; C12 N 5/10; C07 K 14/705; C07 K 16/28; G01 N 33/50; G01 N 33/577; G01 N 33/68; A61 K 31/70; A61 K 38/17; A61 K 39/395

EUR-CL (EPC): C07K014/705; C07K014/705

ABSTRACT:

CHG DATE=19990905 STATUS=O>A novel polypeptide, osteoprotegerin binding protein, involved in osteoclast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided. Receptors for osteoprotegerin binding proteins are also described. The receptors, and agonists and antagonists thereof, may be used to treat bone diseases.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Des

☐ 76. Document ID: EP 801934 A2

L1: Entry 76 of 82 File: EPAB Oct 22, 1997

PUB-NO: EP000801934A2
DOCUMENT-IDENTIFIER: EP 801934 A2
TITLE: Welded Sinusoidal wave stent

PUBN-DATE: October 22, 1997

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	NL

INT-CL (IPC): A61 F 2/06
EUR-CL (EPC): A61F002/06

ABSTRACT:

CHG DATE=19990617 STATUS=O> A malleable, resilient, wire stent 10 having a preformed series of peaks 60 alternating with valleys 65 and wound into a continuous helix having a hollow cylindrical shape. Each pair of peaks and valleys comprises a wave 10. The stent 10 has a number of waves per circumferential revolution such that the adjoining waves align off-peak 50 to off-valley 55 with one or more such adjoining waves being affixed to each other at the off-peak to off-valley locations. The waves can be welded at all locations or only at the circumferential revolutions at the proximal and distal ends of the stent, or intermittently, or in barber pole fashion or along one or more longitudinal axes.



Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc

☐ 77. Document ID: EP 784093 A1

L1: Entry 77 of 82 File: EPAB Jul 16, 1997

PUB-NO: EP000784093A1
DOCUMENT-IDENTIFIER: EP 784093 A1
TITLE: Osteoprotegerin

PUBN-DATE: July 16, 1997

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	US
CALZONE, FRANK J	US
LACEY, DAVID L	US
CHANG, MING-SHI	US

INT-CL (IPC): C12 N 15/12; C07 K 14/715; C12 N 5/10; A01 K 67/027; C07 K 19/00; C12 N 15/62; C07 K 16/28; C07 K 1/107; C12 Q 1/68; G01 N 33/50; G01 N 33/566; A61 K 38/17; A61 K 48/00; C12 N 1/21
EUR-CL (EPC): C07K014/705

ABSTRACT:

CHG DATE=19990617 STATUS=O> The present invention discloses a secreted polypeptide, termed osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. Also disclosed are nucleic acids encoding osteoprotegerin, polypeptides, recombinant vectors and host cells for expression, antibodies which bind OPG, and pharmaceutical compositions. The polypeptides are used to treat bone diseases characterized by increased resorption such as osteoporosis.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Des

☐ 78. Document ID: WO 9636713 A2

L1: Entry 78 of 82 File: EPAB Nov 21, 1996

PUB-NO: WO009636713A2
DOCUMENT-IDENTIFIER: WO 9636713 A2
TITLE: ECK RECEPTOR LIGANDS

PUBN-DATE: November 21, 1996

INVENTOR-INFORMATION:

NAME	COUNTRY
BARTLEY, TIMOTHY D	
BOYLE, WILLIAM J	
FOX, GARY M	
WELCHER, ANDREW A	
MAGAL, ELLA	
LINDBERG, RICHARD A	

INT-CL (IPC): C12 N 15/12; C07 K 14/47; G01 N 33/53; G01 N 33/543; A61 K 38/17
EUR-CL (EPC): A61K038/17; C07K014/47, C07K014/52

ABSTRACT:

CHG DATE=19990617 STATUS=O>Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor are disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Des

☐ 79. Document ID: EP 597503 A2

L1: Entry 79 of 82 File: EPAB May 18, 1994

PUB-NO: EP000597503A2
DOCUMENT-IDENTIFIER: EP 597503 A2
TITLE: ECK receptor ligands.

PUBN-DATE: May 18, 1994

INVENTOR-INFORMATION:

NAME	COUNTRY
BARTLEY, TIMOTHY D	US
FOX, GARY M	US
BOYLE, WILLIAM J	US
WELCHER, ANDREW A	US
PARKER, VANN P	US

US-CL-CURRENT: 460/89
INT-CL (IPC): C07K 15/00; C12N 15/09; C07K 3/00; G01N 33/68
EUR-CL (EPC): A61K038/17; C07K014/47, C07K014/52 , C07K014/705 , C12N005/06 , C12N005/06 , C12N005/06 , G01N033/566 , G01N033/573

ABSTRACT:

CHG DATE=19990617 STATUS=O> Ligands which bind to the eck receptor are disclosed. More particularly, polypeptides which bind specifically to the eck receptor (eck receptor binding proteins or EBPs) and DNA sequences encoding said polypeptides are disclosed. Methods of treatment using eck receptor ligands and soluble eck receptor and disclosed, as are pharmaceutical compositions containing same. A rapid and sensitive method for the detection of receptor binding activity in crude samples is provided.

☐ 80. Document ID: US 2498392 A

L1: Entry 80 of 82 File: USOC Feb 21, 1950

US-PAT-NO: 2498392
DOCUMENT-IDENTIFIER: US 2498392 A

TITLE: Adjustable motor base

DATE-ISSUED: February 21, 1950

US-CL-CURRENT: 248/657

DOCUMENT TEXT:

2 , 4 9 8 , 3 9 2 -Fe--h. 21, 1950 Vy. J. BOYLE ADJUSTABLE MOTOR BASE Filed Feb. 6, 1947 e7 33 le leg. 913 r 16- 5e 93 17 INVENTOR. BY

Patented Feb. 21, 1950 2,,498,39,2 U@N@ITED 5 PATENT OF@F@ICE 2,498,392 'A,DJUSTA,'BLE MOTOR BASE ,W,.illiam@ J..-Boyle, St., Louis, Mo. Ap] @licatioii'February 6,1947, Serial No. -72,61844 4 -Claims. (Cl.:248-23) 2 'This @invention iblates to @ arl a;djustable -motor base, and@has for-one of its@-objects'the@pr6due- ti-on of a @simple and efficierit motor;base @.which may @be adi usted to @:dlamp.,motors of @various @ sizes firmly in position upon the, adjusteible motor@-base. 5 A'further object of -this inverition ia the produc- tion 6f a.:simple @arid efideient-means @for atta;ching :a motor to @the:adjustable motorbase @by -meails of a @U bblt@dlamp@thich @may be swung @to !se- lected clamping;positions. 10 Other objects and advanta-geslof this -inveiition will appear throughout Ithe@ @f6llowing @spedifica- tion and 'claims. In the drawing: Figure I is, a perspective,

view, of the adjustable @1@5 motor base; Figure 2 is a side elevational view@,partly in lon- gitudinal section; Figure 3 is a vertical sectional -view taken on line,3-'3 of Figure 2; 120 'Figure 4 -is an. irregular vertical sectional @View -taken - .on.line 4-4 of-Fig-ure@2,--and showing the U-bolt clamp in a -vertical position; Figure 5 is a fragmeiitary settional perspective view of the motor-suppor-ting @ casing. '-By ;refer@@g -to the dra@w-ing, '.it will @be@:,seen that I 0 designates a suitable support upon which the adjustable motor base is anchored in any con- ventional manner. The adjustable motor base comprises a bottom tray-like member I I having 3,k) upstanding parallel side flanges 12. A pair of lon- gitudinally extending track-ways 13 are secured to the upper face of the member I I and are pro- vided with overhanging flanges 14 which are spacecl from the flanges 12 and spaced from the 3., upper face of the member II to pro-vide track channels for receiving the inturned flanges 15 of the motor-supporting casing 16. The casing I 6 extends abbve the n@ ember i I and is slidable longitudinally of the member I 1. An 40 upstanding bracket 17 is secured to one end of the member I I and a threaded adjusting bolt 18 is adjustablymountedthroughthebracket 17. The bolt 18 carries a bead 19 at its outer end and a suitable nut 20 which abuts the inner face of the 4r) bracket 17, as shown in Figure 2. A depending bracket 21 is carried by '(,I-ie casing 16 and a suit- able nut 2 2 is fixed to the inner face of the bracket 21. The adjusting bolt 18 is threaded through the nut 22 so as to adjust and move the casing 50 16 longitudinally of the member I I and track- ways 13 as the bolt 18 is rotated. The casing IS is provided with a pair of trans- versely extending elongated aligned slots 23 upon the top portion of the casing 16 and near one 65 erid thereof. Anchoring bolts'24:extend vetticdlly through !the apertures'23 and through -the; conventional apertures 2 5 at @ one -end of the m(itor'@2 6 to fit motors of vavious -,vidths. 'Orily.the@@'lower portion of the @motor @ 2,6 has)been shown @since'the invention herein: described is not 'limited to -any particular type of motor. . The casing 1,@6,-is @also provided - with longitudinally extending elongated apertures or slots'2 7 whith -are loca4ired @in @transverse Alignment, one sl6t @or aperture 27 'being located near each side of the casing:@f 6. The inner edge of -each aperture or - slot,2 7 @is provided - with@alpluralityof parallel,cuts 2,8 and,:the,material between,the cuts 28 is' bent, 'tilted,,indlined or downwardly bent to -provide -downwardly inclined @tongues 29 along the inner edge (if -'each aperture or slot 27. A U-shaped clamping bolt 30 extends transversely under 'the upper face -of the casing)f6 1. as shown in.Figure 4,-and@the b6lt.30 is provided-with upstanding ends '31 which extend 'through -'the aperture 27. A clamping olate 32 is carriedby 'these upstanding ends 31 and is adapted to@ overhang a portion of'the motor 26, as @sho-wn @in.pigures 2 @and 4. Suitable wing@nuts 33 -are 'eatried by @the ends @31 of the U -bolt 3 0 %for @clampirig@ -the @plate 32 firrhly in engagement,with the,motor.26. It should be noted that the U-bolt 30 may be set in a vertical position, as shown in Figure 4, and in dotted lines in Figure 2, or it may be swung toward either side of the vertical axis thereof to clamp motors of various sizes in position. The U-bolt 30 is shown swung to a forward clamping I)osition to clamp a relatively short motor in place. The transverse portion of the bolt 30 by fitting behind the inclined tongues 29, will be firmly anchored against sliding movement longitudinally of the slots 27 while at the same time clamping the motor in position, and while the upstanding ends 31 extend at an incline to the vertical axis of the U-bolt. The combination of the U-bolt 30 with the inclined tongues 29 which act as abutments for the U -bolts 30 provides an efficient means for reaching and clamping motors of various base lengths in position. The inclined tongues 29 provide fulcrums against whieb the U -bolt 3 0 may be pivoted. From the fore-oing description, it will be seen that a very sirnple and efficient means has been provided which may be easily adjusted to firmly clamp and support motors of various base lengths in position, thereby avoiding the necessity of providing a large number of supports, each of a different size or length. It should be understood that certain detail

2,498,392 3 changes may be made in the structure described, so long as these changes fall within the scope of the appended,claims. Having described the invention, what I claim is: 5 1. An adjustable motor base comprising a cas- ing, a supporting portion, said casing having a plurality of aligned anchoring bolt-receiving slots located near one end thereof and extending trans- versely of said casing, motor-anchoring bolts 10 passing throu.-h said slots, pivoted motor-an- choring means secured to said casing and moluit- ed for forward and rearward swinging motion for adjustable clamping

engagement with mo- tors of various base lengths, and means engagi- ng .15 said pivoted motor-anchoring means for clamp- ing the anchoring means in engagement with a motor base. 2. An adjustable motor base comprising a cas- ing, a supporting portion, said casing having a 20 plurality of aligned anchoring bolt-receiving slots located near one end thereof and extending trans- versely of said casing, motor-anchoring bolts passing through said slots, a U-shaped clamping bolt secured to said casing and mounted for for- 25 v,ard and rearward swinging motion for adjust- able clamping engagement with motors of vari- ous base lengths, a clamping member carried by said bolt, and clamping nuts carried by said bolt for clamping said member in engagement with 30 a motor base. 3. An adjustable motor base comprising a cas- ing, a supporting portion, said casing having a plurality of aligned anchoring bolt-receiving slots located near one end thereof and extending trans- 35 versely of said casing, motor-anchoring bolts passing through said slots, a U-shaped clamping bolt secured to said casing and mo-unted for for- ward and rearward swinging motion for adjust- able clamping engagement with motors of vari- 40 ous base lengths, a clamping member carried by said bolt, clamping nuts carried by said bolt for clamping said inember ir- engagement with a mo- tor base, said casing having a plurality of laterally 4 plurality of upstanding ends extending through said last-mentioned slots, said slots having abutments on edges thereof for receiving said transverse Portion of said U-bolt to hold the upstandiilg ends of the U-bolt in an inclined position in a manner whereby the clamping member may engage motors of varying lengths to anchor the motor in position. 4. An adjustable motor base,comprising a casing, a supporting portion, said casing having a plurality of aligned anchoring bolt-receiving slots located near one end thereof and extending transversely of said casing, motor-anchoring bolts passing through said slots, a U-shaped clamping bolt secured to said casing and mounted for forivard and rearward swinging motio-n for adjustable clamping engagement with motors of various base lengths a clamping member carried by said bolt, clamping nuts carried by said bolt for clamping said member in engagement with a motor base, said casing having a plurality of laterally spaced longitudino.Ily extending slots, said U- shaped bolt having a transverse portion extending under the upper face of the -casing and a plurality of upstanding ends extending through said last-mentioned slots, said slots having transversely slotted inner side edges defining inclined tongues for receiving said transverse portion of said U-bolt to hold the upstanding ends of the U -bolt in an inclired position in a manner whereby the clamping member may engage r@iotors of varying lengths to anchor the motor in position. WILLIAM J. BOYLE. REFERENCES CITED The following references are of record in the file of this patent: UNITED STATES PATENTS Number Name Date 1,756,515 Hulsey ---------- Apr. 29, 1930 2,118,085 Helmond ---------- May 24, 1938 FOREIGN PATENTS spaced longitudinally extending slots, said U- 45 Number Country Date shaped bolt having a transverse portion extend- 467,959 Great Britain June 25, 1937 ing under the upper face of the casing and a

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L1: Entry 81 of 82 File: USOC Nov 1, 1938

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DOCUMENT-IDENTIFIER: US 2134810 A

TITLE: Combined bed table and book holder

DATE-ISSUED: November 1, 1938

US-CL-CURRENT: 248/449

DOCUMENT TEXT:

Nov. 1, 1938. W. J. BOYLE 2,134,810 COMBINED BED TABLE AND BOOK HOLDER Filed Dec. 29, 1936 2 11- 7z 10 :17 @6' .14 49. -y4 Its ililp 1.1 lea

Patented Nov. I, 1938 2 134,810 UNITED STATES PATENT OFFICE 21134,810 COMBINED, BED, TABLE AND@ BOOK HOLDEP. WilHam J. Boyle, New York, N. Y. App][ication December 29, 1936, Serial No. 118,041 5 Claims. This invention relates to a "Combined bedtable and book-holder" which provides comfort @and facilities for persons who wish to read while lying down. Tho bbok-holding portion thereof may be embedded in the supporting surface 6f the bed-table, leaving the supporting surface of the bed-table practically smooth and free froni obstructions, and perm@.tting the use 6f the device as an ordinary bed-table for eating@ writing, etc. lo@ The object of this@ invention is to provide a combined bed-table and bbok-hbider which permits reading in comfort while@ lying on one's back as well as when sitting up, eliminating tiring one's hands, arms, and neck, and straining 15 @ his eyes and causing a headache by focusing the eyes in a dropped positioii as when resting the bbok on one's chest. A fuxther object of this invention is to provide 20@ a combined bed-table and book-holder which consists of a niinimum of parts, requires a minimum of adjustments, and provides a maximum of facilities and comfort. Mgure 1 is a top plan view of the combined bed-table and book-holder; 25 Figure 2 is a horizontal sectional view taken on line 2-2 of Mgure 1, looking in the direction of the arrow; Figure 3 is a perspective view of the device adjusted for reading while lying down; 30 Figure 4 is a central vertical sectional@ view of the device, the parts being adjusted for reading while lying down', Figure 5 is a sectional perspective view showing@ a fragmentary portion of the front central por- 3r) tion of the shelf and upturned lip thereof; Figure 6 is an enlarged vertical sectibnal 'view taken on line 6-6 of Figure 3" Figure 7 is a fragmentary sectibnal perspective view of a portion of the shelf showing one of the 40 adjustable lips at the front edge of the shelf in an expanded Dosition, Flgure 8 is a fragmentary sectional view of the table showing the grooves formed therein for receiving the supporting frame and shelf -1 45 Figure 9 is an edge elevatibn of the table look- ing at the inner or lower edge thereof. This device consists of a bed-table having embedded in its supporting surface I a book-holder comprising a shelf 2 having a supporting frame 50 3, consisting of a T-shaped member, vertically slidably and adjustably supported at the front central portion of the said shelf 2 by means of a clip 4 carried by the said shelf 2. The shelf 2 is slidably and adjustably supported m an elon- 55 gated horizontal slot 5 in the lower or distal pbr- (Cl 45-58) tion of the supporting surface I as shown in Figs. 1, 2, 3 and 8. The shelf 2 is held in adjusted position in the slot 5 by means of set-screws 6@ The supporting surface I has therein a grobve 7 abbve the slot 5 as shown in Figs. 2 and 3, 5.. wilieli is parallel to and which longitudinally in- tersects the slot 5 throughout the entire length thereof. The said grobve 7 matches, receives, and embeds therein flush with the sup- porting surface 11 the up-turned vertically ad- 10 justable lips 8 at the front edge of the shelf 2 when the shelf 2 is wholly inserted within the slot 5. The supporting surface I has therein be- neath the central portibn of the slot 5 a recess 9, the opening of which is in the lower edge of the 15 slot 5 and the supporting surface 1. The 'said re- cess 9 matches and receives therein the clili 4 when the shelf 2 is whblly inserted within the slot 5. The supporting surface I has therein two 20 grooves 10, linearly related tb each other, bisect- ingly and perpendicularly intersecting the slot 5, and extending above and belbw the slot 5 as shown in Figs. 1 and 3. The supporting surface I h@s therein a horizontal groove I I in the upper 25 central portion therebf, perpendicularly and bi- sectedly intersecting the above mentioned groove fO wbich extends in the upper central'portion bf the supporting surface I as shown in Figs. I and 3. The last mentioned grooves IO and I I match 39 and receive therein the suppbrting frame 3, em- bedding the support-irig frame 3 flush with the supp6rti ng surface 1, practically elimifiating ob- struction s thereon. The supporting surface i bears thereon two 35 h6rizont al outwardly projecting flanges 12, one bn each side of the recess 9, and linearly related tb each other as shown in lqgs. I and 8, which serve as a rest for reading matter, and which also serve in protecting the set-screw 13 on the clip 4 40 from possible damage. The set-screws 6 which hold the shelf 2 in ad- justed pos 'on extend through the wood under- neath the supporting surface I to the slot 5. The set- screws 6 are placed in daps i4 in the lower 45 edge of the supporting surface 1, as shown in Figs. I and 3, in order to protect them from possible damage, and in order to eliminate obstructions from the edge of the suppbrting surface 1. The set- screws 6 are supported by metal plates 15, 50 having therein threaded apertures matching the threads bn the set- screws 6. The metal plates@ 15 are fixed in the daps 14 with wood screws 16. The up-

turned vertically adjustable lips 8 at the frbnt edge of the shelf 2,bear verticaliy slid- 55

2 2,134,810 able extensions 17 which are cross-sectionally U-shaped and fit tightly over the said lips 8 and are composed of resilient sheet metal; thereby the tension of the metal is utilized in retaining the vertically slidable extensions 17 in adjusted position on the said lips 8. The said lips 8 have therein vertical slots 18. The vertically slidable extensions 17 have impressed therein matching indentations 19 which match and fit into the ver- 10 tical slots 18, thereby preventing longitudinal movement of the vertically slidable extensions 17 and preventing the vertically slidable extensions 17 from being easily removed therefrom. The vertically slidable extensions 17 each bear out- 15 wardly turned lugs 20 at the lower edge thereof, as shown in Figs. 2, 5 and 7, which aid in adjusting the said vertically slidable extensions 17 to the desired positions with one's fingers. The book 21 is indicated'by the dotted lines in 20 Mg. 3. The book 21 is supported at the lower edge thereof where there is no print by the shelf I and lips 8. The book 21 is supported . at the upper edge where there is no print by the horizontal section of the supporting frame 3. The 25 book 21 is supported in the central portion thereof where there is no print by the vertical section of the supportihg frame 3; thus the book 21 is provided with perfect support without interfering with the vision of the print. 30 The description and drawing relating thereto should be taken as illustrative or diagrammatic rather than limiting me to the precise description herein. What I claim as my invention and desire to 35 secure by letters Patent, is- 1. A combined bed-table and book-holder comprising a supporting surface adapted to act as a book-holder in inclined position and as a table in horizontal position, a shelf, means at the low4(er edge of said supporting surface for mounting said shelf for sliding movement perpendicularly to said supporting surface into adjusted position relative thereto, means for holding said shelf in said adjusted positions, a book-engaging lip at the 45 front edge of said shelf, a book-holder overlying said supporting surface, means mounting said book-holder on said shelf, said book-holder including means for holding the central Portions of a book, and means for holding the upper leaves 5o of a book extended for reading and grooves in said supporting surface corresponding to said shelf, said lip, and said book-holder, whereby in the inwardmost adjustment of said shelf, said lip, and said- book-holder will be substantially em- 55 bedded in said supporting surface, providing an unobstructed table surface. 2. A combined bed-table and book-holder cOmprising a supporting surface adapted to act as a book-holder in an inclined position and as a table 60 in a horizontal position, a shelf adjustable transversely of the supporting surface, n- leans for locking the shelf in an adjusted I>osition, a- book-engaging means at the outer edge of said shelf having ex@uension means increasing the width of said 65 book-engaging means, a book-holder overlying said supporting surface, means mounting said book-holder on said shelf, said book-holder including book-engaging means and leaf-engaging means, and said supporting surface having recess 70 means formed therein for receiving said bookholder and shelf, whereby in the inwardmost adjustment Gf said shelf and book-holder the shelf and book-holder will be substantially embedded in said supporting surface, providing an unob- 75 structed table surface. 3. A combined bed-table and book-holder com- prising a supporting surface adapted to act as a book-holder in an inclined position and as a ta- ble in a horizontal position, a shelf adjustable transversely of the supporting surface, means for 5 locking the shelf in an adjusted position, a book-engaging lip at the front edge of said shelf, out- wardly adjustable extensions carried by said lip, said lip having elongated channels formed trans- versely of the lip, said extensions having inden- 10 tations fitting in said channels for limiting the adjustment of said extensions upon said lip and preventing longitudinal movement with respect to the lip, means for facilitating the gripping of the extensions by the fingers of an operator, a 15 book-holder overlying said supporting surface, means mounting said book-holder on said shelf, said book-holder including book-engaging means and leaf-enga.,ing means, and said supporting surface having recess means formed therein for 20 receiving said bogk-holder and shelf, whereby in the inwardmost adjustment of said shelf and book-holder, the shelf and book-holder will be substantially embedded in said supporting sur- face, providing an unobstructed table surface. 25 4. A combined bed-table and book-holder com- prising a supporting surface adapted to act as a book-holder in an incl-ined position and as a ta- ble in a horizontal position, a shelf adjustable transversely of the supporting surface, means

for 30 locking the shelf in an a,djusted position, a book- engaging lip at the front edge of said shelf, out- wardly adjustable extensions carried by said lip, said lip having elongated slots formed transverse- ly of th.e lip, said extensions having ihdentations 35 fitting in said slots for limiting the adjustment of said extensions upon said lip and preventing lon- gitudinal movement with resaect to the lip, out- wardly turned lugs formed upon said extension members for facilitating the gripping of the ex- 40 tension members by the fingers of the operator, the extension members being U-shaped in cross- section overlapping said lip, a book-holder over- lying said supporting surface, means mounting said book-holder on said shelf, sa-id book-holder 45 including book-engaging means and leaf-engag- ing means, and said supporting surface having recess means formed therein for receiving said book-holder and shelf, whereby in the inward- most adjustment of said shelf and book-holder, 50 the shelf and book-holder will be substantially embedded in said supporting surface, providing an unobstructed table surface. 5. A combination bed-table and book-holder comprising a supporting surface adapted to act 55 as a book holder in an inclined position and as a table in a horizontal position, a shelf adjust- able transversely of the supporting surface, means for holding the shelf in an adjlisted position, a book- eiigaging means egrried at the outer edge 60 of the shelf, a book-holder overlying said sup- - porting surface, a collar carried by said shelf and receiving said book- holder, for adjustably holding the book-holder in engagement with the shelf, outwardly projecting flanges carried by 65 said supporting surface near Gne edge and ar- ranged in oppositely spaced relation with respect to said collar whereby said collar may lie in be- tween said flarges and be shielded thereby, and said supporting surface having recesses for re- 70 ceiving the book-holder, shelf and collar where- by said book-holder, shell@ and collar will be sub- stantially embedded in the supporting surface. WILLIAM J. BOYLE. 7,5

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DOCUMENT TEXT:

Feb. 6, 1934. W. J. BOYLE 1,945,931 BOOK STAND AND TRAY Filed Aug. 12, 1930 4 Sheets-Sheet I Z, WILLI.9MI,,UOYt E, INVENri9@7'

Feb. 6, 1934. W. J. BOYLE 1,945,931 BOOK STAND AND TRAY Filed Aug. 12, 1930 4 Sheets-Sheet 2 "Q 0 0 QZ TOR Wlt Z IA,4f J - &O YL E- NEY

Feb. 6, 1934. W. J. BOYLE 1,945,931 BOOK STAND AND TRAY Filed Aug. 12, 1930 4 Sheets--Sheet 3 go 94 CZ@ !94, @9z 190 INVEJVTOR, C - TORNEYS.

Feb. 6, 1934. W. J. BOYLE 1,945,931 BOOK STAND AND TRAY Filed Aug. 12, 1930 4 Sheets-Sheet 4 .9z .90 T iol @9 ,-98 1 96 39 G 00 ic ,,V/, 7 c 6 -9 199 69 s- 7c -9 7 ---o 0 INVENTOR. IV 7v ou WIZI141dj. BOYL E- 63 T O P I V E Y S .

Patented Feb. 6, 1934 1 945 9@il UNITED STATES PATENT OFFICE i,945,931 tOOK'STAi@4D AND TRAY@ William J. Boyle, Indiana Harbor, Ind., assigfioi of two-fifths t6 Fr,-ncis Warrer. j3oyle, In- diana I-larbor, Ind. Application Augfist 12@ 1930. 8erial No. 474,761 7 Clalin@g. This invention appertains to a novel stard for supporting reading

matter, such as books, magazines, newspapers etc., to permit the convenient reading thereof by persons reclining in bed or sitting in a chair. One of the primary objects of my invention is to provide an improved stand of the above character, which can be readily collapsed to occu-oy a n-linimum amount of space wheyi not in use and which 10 can be readily set up for instant use ard adjusted to the particular needs of the person and to the chair or bed. Another important object of my invention i-s to provide an improved stand embodying a main 15 supporting bar adjustable as to length with supporting legs therefor adjustable as to height, the legs being connected with the main supporting bar in a novel manner to facilitate the complete coilapsing of the stand so as to occupy a minimum 20 ar-vlount of space while in use. A further im-oortant object of my invention is the provision of novel means for connect,:,-lg the rack for the reading riatter with the main support, whereby the rack can be adjusted longitu2,5 dinary of the support at an angle relative there to for positioning the rack in the desired and effective place. A further sali-ent object of my invention is the provision of novel means for constructing a rack i,O whereby the reading matter will be flrmly held in place tnereon and whereby the rack can be adjusted as to the size of the reading matter to permit the convenient holding thereof. A further importap-t object of my invention is -.35 the- pro-vision of a novel tray for association wi-th a rack whereby the complete stand can be utilized as an invalid's table, the rack being adapted to be swung over the main supporting bar in a horizo-.qtal plane to re,ceive the tray. 40. A further object of my invention is the provision of novel means f6r constructing the tray itself, whereby tb-e tray can be folded to occupy a minimum ainount of space when not iiq use, and whereby the tra@r when opened to its extended 45 operative posi-tion will be held rigid against aecident.tl folding and present a substantially fiat surface for receiving the articles. A still further object of my iy-ivention is to provide an improved device of the above character, 50 which will be durable and efficient in use, one that will be sirnple and easy to manufacture, and or-e which can be pl.aced upon the market at a reasonable cost. With these and other objects in view, the in55 vention consists in the novel construction, ar- (Cl. 45-80) rangement and formation of parts, its will be hereinafter more fully described, claimed, and illustrated in the accompatlying drawings, 'M' which drawings:- Figure I is a top plan view of rny improved de,- od vice iJItistrating the novel stand and rack for the reading niatter. rigure 2 is a detail perspective view of the supporti ng shelf used in connection with the rack. 65 Figure 3 is a detail perspective view of one of the extension slides for connection with the sup- porting shelf. Figure 4 is a front elevation of My iml)roved device showing parts thereof broken away and 70' in section. Figure 5 is a detail vertical section through the main supporting bar taken on the line 5-5 of Figure 4 illustrating the adjustability of said main supporting bar. 75'. Figure 6 is a horizontal section talten on the line 6-6 of Figure 4 looking in the direction of the arrows illustrating the means for holding the legs in an adjusted position a-fter being ad- justed as to length. Figure 7 is an end elevation of my improved device sb-owing parts thereof broken away and in section. Figure 8 is an end elevation of the rack with the tray connected therewith, the tray being 8'-5 swung to its horizontal position. Figure 9 is an enlarged detail vertical section, with parts broken away, taken on the line 9-9 of Figure I looking in the direction of the arrows ap-d illustrating the means for a-djustably con- go necting the rack with the main supporting bar of the stand. Figure 10 is a detail fragmentary perspective view of the tray illustrating 'Lhe means for hold- ing the tra-y agains@u collapsing.@6' Figure 11 is a top plan view of my improved tray showing the same associated with the rack@ Figure 12 is a detail fragmentary sect@ion taken on the line 12-12 of Figure 11 illustrating one of the means employed for conrecting the tray 10 . 0 with the rack. Figure 13 is a similar view taken on the line 13-13 of Figure 11 illustrating another part of the means for holding the tray on the rack. Figure 14 is a similar view talten on the line 165 14-14 of Figure 11 illustrating another part of the means for holding the tray on the rack. Figure 15 is a front elevation of my improved rack removed from the stand. Figure 16 is a fragmentary end elevation of 116

2 1,945,931 the rack showing a part thereof and illustrating the ineans whereby the rack can be adjusted as to the size of the reading matter. Figure 17 is a detail horizontal section taken 6 on the line 17-17 of Figure 16 illustrating one of the adjustina means of the rack. Figure 18 is a detail perspective view of one of the extension slides for use in conjunction with the rack, and 10 Figure 19 is a section

taken on line 19-19 of Figure 1. Referring to the drawings in detail, wherein similar reference characters designate corre- sponding parts throughout the several views, the 15 letter A generally indicates my improved device, which comprises a novel stand B, the novel rack C for the reading melter, and the novel tray D for connection with the support. The improved stand B comprises a main hori- 20 zontally disposed supporting bar 15 and this bar is Adjustable as to length and embodies a pair of glidably j3onnected sections 16 and 17, having their inner terminals iorovided with slides 18 for receiving the body portioil of the opposite section. 26 The section 16 can be provided with a guide and stop lug 19 on its inner face f or engaging the adjacent body portion of the section 17 ' As shown, the sections 16 and 17 are of substantially a channel bar construction in o-rder to add rigidity 30 thereto. One end of the bar 15 is P'rovided with a lazy-H head 20, the ends of which support the rig@it anglilar extending arms 21 ond 22. The other end of the main frame or support bar 15 is provided with a circular head 23 for a purpose, 3.5 which will be later described. The lazy-H head 20 includes upper plate 21a and lower plate 229. between which the arms 21 and 22 are received, and these arms are p@votally connected to the head by means o-f suitable pivot bolts 24. In 40 order to prevent accidental swinging of the arms on the head 20 after adjustment of the arms, the meeting surfaces of the arms and the head 20 are threaded or provided with matching teeth 25, a,s clearly shown in Figure 4 of the drawings. 45 The pivot bolts 24 are adjustable so as to bring the teeth into intimate contact with one another upo,n the adjustment of said arms. it is obvious also that in view of the fact that the arms are hingedly connected with the head that the arms 40 can be swung parallel to the main frame or supporting bar 15, when it is desired to collapse the stand, as will be later described. The outer terminals of the arms 21 and 22 carry pivoted- supporting legs 26 and 27, and it is to be a5 noted that the end of the bar 15 from the head 20 carries a similar supporting leg 28. These legs are all adjustable as to height and each include upper and lower slidably connected sections 29 and3O. Thelegsections29and3Oareheldinany 6o preferred adjusted position by means of set screws 31 carried by the lower section for impinging against the upper section as clearly shown in Figures 4 and 6. All of the legs 26, 27, and 28 are connected in the same marner with the frame (35 and thus the ends of the arms 21 and 22 are provided with heads 32 similar to the head 23 formed on the end of the bar 15 remote from the lazy-H head 20. The upper end of the legs 26, 27, and 28, and the circular heads 23 and 32 are provided 7o with matched teeth 33 a,nd suitable adjusting bolts 34 extend through the upper terminals of the legs and the head, and serve as means for holding the legs in any preferred adjusted angular position. It is obvious that by this construc7r) tion the legs 26 and 27 can be swung parallel tQ the frame arms 21 and 22 after which the arms can be swung parallel to aild on opposite sides of the main frame bar 15. Likewise the leg 28 can then be swung parallel to the frame bar 15. Thus the entire stand can be readily folded to occupy 80 a minimum amount of space during shipping or storage. The lower ends of the legs are preferably pro- vided with feet 35 so as to prevent injury to the floor or furniture that the stand may be ass6- 86 ciated with. Associated with the novel stand 13 is my im- proved rack C for the reading matter and this rack C includes upper and lower parallel frame bars 36 and 37 (see Figures 4 and 15). The go upper and lower frame bars 36 and 37 are rigidly connected together by end bars 38 and intermedi- ate angle bars 39. The lower end of the rack frame C adjacent to the opposite edges thereof is provided with inwardly directed U-shaped clips 95 40, and these clips are adapted to. slidably receive a supporting shelf 41 (see Figures 1, 2, and 4). This shelf 41 is preferably formed from sheet metal and has its front edge upturned to provide a retaining flange 42. The body portion of the loo shelf can be provided with perforations 43 in order to lighten the weight thereof. The trans- verse center of the body portion of the shelf can be provided with a slot 44 which opens out through the rear edge thereof. As clearly shown, in 105 Figure 4 of the drawings, the clips 40 receive the side edges of the shelf and the shelf is held in an adjusted position in the clips by means of set screws 45, carried by the clips and which'screws are adapted to impinge against the lower face 110 of the shelf. The rack C is adjustably associated - with the stand in a novel manner and this means includes a pair of spaced rearwardly extending ears 50, which constitute integral extensions pro- jecting from the rear faces of the re arwardly 11,5 extending flanges of the intermediate angle bars 39 of the rack C. These ears 50 receive there- between an ear 51 carried by a slide 52 which is adapted to be associated with the frame bar, 15. The pair of ears 50 and the ear 51 are

adapted 120 to be pivotally connected together by means of an adjusting bolt 53 extendilig therethrough and the inner faces of the ears 50 and the opposite faces of the ear 51 are provided with matched teeth in order to prevent accidental turning of the ears 50 125 on the ear 51 after the rack C has been adjusted to the desired angle. By this construction it obvious that the rack C can be swung at any de@ si,red angle to the stand and can be swung to a complete horizo@ntal position over the frame bar, 130 as shown in Figure 8 of the drawings. The slide 52 (see Figure 9 of the drawings) is of a substan- tially U-shape and is adapted to be hooked over the frame or supporting bar 15 of the stand B and is held against accidental displacement therefrom ap-d against accidental sliding movement longi- tudinally there6f by means of a set screw 54 car- ried by a lug 55 formed on said slide. This set screw is adapted to be adjusted under the frame bar 15 as shoNiT-n. ' By this construction tlie rack, can be lifted off of the frame or supporting bar when it is desired to collapse the rack. The reading ,natter is adapted to be placed against the face of the rack with its lower edge resting on the shelf 41 and means is provided for holding the reading matter ii-i Dlace on the rack against dislodgment. This means embodies a centrally disposed holding rod 60 having its lower end provided with a slide arm 61, which is mount- ecl Within the rigid guicle sleeve 62 carried by the

1,946)931 3 lower edge of the franie and the rack C. This guide sleeve 62 is Drovided with a set screw 63 for impinging agoirst the sl-'@de arrii 61 for hold-ing the rod 60 in its desired adjusted position relative to the face of the rf,@ck. By 'Uhis construction, it can be seen that the central portioli of the book, magazine or other reading matter will be held clamped betv,7eeT-i the face of the rack C and the rod. The rod 60 has slidably mounted thereon 10 sl-ldes 64 and 65. These slides are held in adjusted posil@lion o,-q the rod by means of set screws 66 and carry laterally extendir-g rods 67 for engaging the leaves of the book or other readin.- metter. The rack C ca-ii be enlaxged when nevvspapers jr) or the like is to be supported and the means for enlarging the rack C includes an upper frame bar 68 having p,'@Votally connected thereto mo-vable arms 69. These arms 69 are adapted to engage the end bars 38 of the frame of the support and 20 each arm carries, adjacen" to its lo@,jer end a Ushaped clip 70 for embracii-ig the said frame bars 38. These el-ips 70 can be provided with set screws 71 f6r engaging the frame bars 38 for holding the arms in Droper po@sition thereon. When 2,5 the addit,@oiial frame is no'u in use, the arms 69 can be swung on their pivot in parallel relation to the upper add-itional frame bar 68 and I prefer to construct the addit-lonal frame bar 68 of slidably connected sectioiis 72 and 73 so that the 30 length of this bar can be ceduced when the bar is not in use. The ends of the top frame bar 36 of the frame of the rack C can likewise have associated therewith laterally extending arms 74 which are adapted to extelid beyond the terminals of the upper fra@ne bar 36. The inner e-.ids of these arm@ s 74 can carry clips similar to the clips 70 show@-i in Figures 16 and 17. The outer eiids of the upper add;itlonal frame bar 68 and the outer end of the arris 74 can receive lengthening 40 arms 75, and these lengtheriing arms 75 are o' a substantwly C-shape i@i cross section for slidably engaging the end of the additional fraine bar 68 and the leng'thenir)-g arm 74 and it is to be noted that the lengtheiiing arm 74 and the end of the additional frame bar 68 are provided with longitudinally extend-ing slots 76 through which are adapted to extend set screws 77 for engaging the said slides 75. It 4 obvious that upon the tight- is ening of the set screw 77 against the body portion of the slides 't,'.lat the flanges thereof will be brought into intimate frictional contact with the faces of the additional upper frame bar 68 and the lengthening arm 74. The supporting shelf 41 can also be provided with removable lengthening slides 78 as clearly shown in Figures I and 3. Tlaese lengthening slides 78 of the shelf 41 are of an L sha-oe -in cross section and one flange of each slide is provided with a bent bp-ck flange portion 79 for en.-aging over the upstanding 'Llange 42 of the shelf. BY this construction the sli-des 78 can be readily associated ,@7ith the shelf and moved inward toward one another or outward away from one another as desired. The tray D can be readily associated with the rack C, when it ;s desired to use the device as an invalid's table or the like and this tray D embodies companion sections 90, and 91, the meeting edges of which are provided with aligned hinge barrels 92 for receiving suitable pivot pins whereby the tray sectio- ris can be folded one upon the other to reduce the area of the tray when the same is not in use. When the tray is opened to its fuU extent the sections are prevented against accidental swinging movement by the im of pivoted latches 93 assbciated with-

, the sections 90 and these latches are adapted to hook over up-. standing lugs 94 form6d on the section' 91. It is to be nbted that the marginal edge8 of the see- tions are provided with upstanding retain.ing 80 fianges or ledges 95. When the tray is t6 be asso- ciated with the support, the shelf 41, th@ 'holding rod 60, and the other accessories for the rack C are r&movled therefrom and the rack i,s swung to its ho- rizontal position over the stand, B. T, e 85 tray is now placed on the surface of the rack C and means is provided for connecting the tray t6 the rack C against accidental displacement the're- from. The lower surface of the tray is provided ,,vith a d,-.pend-ing lug 96 which is adaptpd t6 b6 go i-eceived in a recess 97 formed in the 16w.er frame bar 37 af the suppprt. At a point spaced from the lug 96 and in longitudinal alignment there- with, the lower surface of the tray D carries a cli-P 98 for en,-aging under the frarhe bar 37 as 95 clearly shown in Figuros 13 of the drawings. A similar clip 99 is carried by the lower s&face of the tray adjacent to the transverse center there- of and this clip ;s adapted to engage the frame bar 36 as clearly shown in Figure 14 of the draw- 100 ings. It is to be noted at this time that the clip 98 is pivotally associated with the tray so ihat the same can be swung into and out of engagement with the frame bar 37. When the tray is to be associat ed with the rack C the clip 99 is flrst .105 slipped under the frame bar 36 after which the tray is lowered to position the lug 96 in the recess 97 of the frame bar 37, after which the pivoted clip 98 is swung under the frame bar 37. From the foregoing description, it can be seen that I 110 have provided a combined holder for reading matter and invalid's tray, in which the various parts.tl- lereof can be collapsed and folded to oc- cupy a minimum amount of space when not in use. 115 ChaD ges in details may be made without de- parting from the spirit or the scope of this in- vention, but:- 'vvhat I claim as new is: 1. A device of the character described, com- 120 prising a supporting stand includiiig a main longitudinall@y extending bar, an adjustable leg pivotal',y connected v@,ith one end of the bar, a lazy-H head connected with the opposite end of the bar, swinging arms supported by the lazy-H head 195 movable from a position at right angles to the bar to a position parailel to the bar, pivoted legs associated wi-'Lh the outer ends of the arms, and a sun oi-ting rack detachably and- adju9tably asp so-iated with the supporting bar. 130 2. In a device of the character described, a supporting stand including a longitudinally ex- tending bar including a pair of slidably connected sections, a pivoted leg carried by one end of the bar, means adjustably holding the leg against 135 pivotal movement, pivoted arms connected to the other end of said bar and movable to a position ei.ther at right angles to the bar or parauel to the bar, means for holding the arms in adjusted positions, P,'@Voted legs carried by the outer terminals of the arms, means for holding the legs against swinging movement, and means for adjusting the length of all of the legs. 3. In a device of the character described comprising a- supporting stand, a suppor g ame associated with the stand embodying a body against wl-iich the matter to ' be supported is placed, clamps carried by said body, a supporting shelf arranged at right angles to the body slidably received in said clamps, said shelf being pro- 1,.@o

vided with a rlght angulaxly disposed abutnient ilange at its front edge, and extension slides detachably associated With said flange. 4.. In a device of the character described, a supporting stand including a main frame bar, a supporting frame including upper and lower frame strips and end and intermediate frame 6trips connected to the first mentioned frame strip@s, a bracket slidably and detachably connect- 10 ed with the main frame bar, means pivotally connecting the supporting frame to the bracket, one of the frame strips being provided with a recess, a tray detachably associated with one face of the supporting frame having a lug for reception in said recess, a rigid clip for engaging another friime strip, and a pivoted clip for engaging the frame strip provided with a recess. 5. A device of the character described, a supporting stand, a rack adjustably connected with 20 the I stand, said rack including upper and lower frame strips and end and intermediate connecting.frame strips, a shelf slidably associated with the lower frame strip, the shelf being provided with a transversely extending slot, a guide sleeve earried by the rack positioned in said slot, a clamping rod having a right angularly extending arm slidably, received in said sleeve, means for so 35 40 46 50 6r) '70 clainping the arm in an adjusted position in the sleeve, slide sleeves @djustably mounted oil the rod, and leaf rods connected with said last men- tioned slide sleeves. 6. In a device of the character described, a sup- 80 porting frame including a main longitudinally

extending frame bar, a rack including upper and lower frame bars and connecting end and inter- mediate frame baxs, rearwardly extending pivot ears carried by the intermediate frame bars, a 85 bragket substantially U-shaped in cross section slidably and detachably fitted on the longitudi- nally extending main bar, a pivot eax on said bracket received between the first mentioned pivot ears, and an adjusting pivot bolt extending 9(through said pivot ears. 7. In a device of the character described, a sup- porting stand including a main frame bar, a frame reading rack including upper and lower frame strips, and end and intermediate frame i),5 strips connected to the first mentioned frame strips, a bracket slidably and detachably con- nected with the main frame bar, means pivotally connecting the rack to the bracket, and a tray detachably associated with one face of the rack loo and having a rigid clip for engaging a frame strip. WILLIAM J. BOYLE. 105 110 115 120 126 130 185 140 150

Terms	Documents
(Boyle-William-J.IN.)	82

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☐ 1. Document ID: US 20040157771 A1

Using default format because multiple data bases are involved.

L6: Entry 1 of 20 File: PGPB Aug 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040157771
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040157771 A1

TITLE: Rank-ligand-induced sodium/proton antiporter polypeptides

PUBLICATION-DATE: August 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bird, Timothy A.	Bainbridge	WA	US	
Tometsko, Mark E.	Seattle	WA	US	
Dougall, William C.	Seattle	WA	US	
Mosley, Bruce A.	Seattle	WA	US	

US-CL-CURRENT: 514/12; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc

☐ 2. Document ID: US 20030195156 A1

L6: Entry 2 of 20 File: PGPB Oct 16, 2003

PGPUB-DOCUMENT-NUMBER: 20030195156
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030195156 A1

TITLE: Peptides and related molecules that bind to TALL-1

PUBLICATION-DATE: October 16, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Min, Hosung	Newbury Park	CA	US	
Hsu, Hailing	Moorpark	CA	US	
Xiong, Fei	Thousand Oaks	CA	US	

US-CL-CURRENT: 514/14; 514/15

ABSTRACT:

The present invention concerns therapeutic agents that modulate the activity of TALL-1. In accordance with the present invention, modulators of TALL-1 may comprise an amino acid sequence Dz.sup.2Lz.sup.4 wherein z.sup.2 is an amino acid residue and z.sup.4 is threonyl or isoleucyl. Exemplary molecules comprise a sequence of the formulae 1 (SEQ. ID. NO: 100) a.sup.1a.sup.2a.sup.3CDa.sup.6La.s-up.8a.sup.9a.sup.10Ca.sup.12a.sup.13a.sup.14, (SEQ. ID. NO: 104) b.sup.1b.sup.2b.sup.3Cb.sup.5b.sup.6Db.sup.8Lb.sup.10b-.sup.11b.sup.12b.sup.13b.sup.14Cb.sup.16b.sup.17b.sup.18 (SEQ. ID. NO: 105) c.sup.1c.sup.2c.sup.3Cc.sup.5Dc.sup.7Lc.sup-.9c.sup.10c.sup.11c.sup.12c.sup.13c.sup.14Cc.sup.16c.sup.17c.sup.18 (SEQ. ID. NO: 106) d.sup.1d.sup.2d.sup.3Cd.sup.5d.s-up.6d.sup.7WDd.sup.10Ld.sup.13d.sup.14d.sup.15Cd.sup.16d.sup.17d.sup.18 (SEQ. ID. NO: 107) e.sup.1e.sup.2e.sup.3Ce.sup.-5e.sup.6e.sup.7De.sup.9Le.sup.11Ke.sup.13Ce.sup.15e.sup.16e.sup.17e.sup.18 (SEQ. ID NO: 109) f.sup.1f.sup.2f.sup.3Kf.su-p.5Df.sup.7Lf.sup.9f.sup.10Qf.sup.12f.sup.13f.sup.14

wherein the substituents are as defined in the specification. The invention further comprises compositions of matter of the formula

(X.sup.1).sub.a--V.sup.1--(X.sup.2).sub.b

wherein V.sup.1 is a vehicle that is covalently attached to one or more of the above TALL-1 modulating compositions of matter. The vehicle and the TALL-1 modulating composition of matter may be linked through the N- or C-terminus of the TALL-1 modulating portion. The preferred vehicle is an Fc domain, and the preferred Fc domain is an IgG Fc domain.

☐ 3. Document ID: US 20030104485 A1

L6: Entry 3 of 20 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030104485
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030104485 A1

TITLE: ANTIBODIES SPECIFIC FOR OSTEOPROTEGERIN BINDING PROTEINS AND METHOD OF USE

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
BOYLE, WILLIAM J.	MOORPARK	CA	US	

US-CL-CURRENT: 435/7.2; 435/320.1, 435/325, 435/69.1, 530/350, 530/388.22, 536/23.5

ABSTRACT:

A novel polypeptide, oseteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

☐ 4. Document ID: US 20030103978 A1

L6: Entry 4 of 20 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030103978
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030103978 A1

TITLE: Selective binding agents of osteoprotegerin binding protein

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Deshpande, Rajendra V.	Thousand Oaks	CA	US	
Hitz, Anna	Newbury Park	CA	US	
Boyle, William James	Malibu	CA	US	
Sullivan, John K.	Newbury Park	CA	US	

US-CL-CURRENT: 424/152.1; 530/388.1

ABSTRACT:

Selective binding agents of osteoprotegerin binding protein (OPGbp) are provided by the invention. More particularly, the invention provides for antibodies and antigen binding domains which selectively bind to OPGbp and may be used to prevent or treat conditions relating to loss of bone mass. Nucleic acid molecules encoding said antibodies and antigen binding domains, and expression vectors and host cells for the production of same are also provided.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 5. Document ID: US 20030100488 A1

L6: Entry 5 of 20 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100488
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100488 A1

TITLE: OSTEOPROTEGERIN BINDING PROTEINS

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
BOYLE, WILLIAM J.	MOORPARK	CA	US	

US-CL-CURRENT: 514/12; 435/252.33, 435/320.1, 435/6, 530/350, 536/23.5

ABSTRACT:

A novel polypeptide, osteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 6. Document ID: US 20030099990 A1

L6: Entry 6 of 20 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030099990
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030099990 A1

TITLE: TALL-1 receptor molecules and uses thereof

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hsu, Hailing	Moorpark	CA	US	

US-CL-CURRENT: 435/6; 435/320.1, 435/325, 435/69.1, 435/7.2, 530/350, 536/23.5

ABSTRACT:

The present invention provides tumor necrosis factor and apoptosis ligand-related leukocyte-expressed ligand 1 receptor (TALL-1R) polypeptides and nucleic acid molecules encoding the same. The invention also provides selective binding agents, vectors, host cells, and methods for producing TALL-1R polypeptides. The invention further provides pharmaceutical compositions and methods for the diagnosis, treatment, amelioration, and/or prevention of diseases, disorders, and conditions associated with TALL-1R polypeptides.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 7. Document ID: US 20030040113 A1

L6: Entry 7 of 20 File: PGPB Feb 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030040113
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030040113 A1

TITLE: Composition and methods for the production of biological tissues and tissue constructs

PUBLICATION-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mizuno, Shuichi	Brookline	MA	US	
Tokuno, Toshimasa	Tokyo	MA	JP	
Berlowitz Tarrant, Laurence J.	Easthampton		US	

US-CL-CURRENT: 435/395

ABSTRACT:

The present invention relates to compositions and methods for preparing tissues or tissue constructs. In selected embodiments, the invention relates to the construction of a multi-layered biological structure (i.e. system) that includes a cellular support matrix seeded with living cells derived from a native tissue. The present invention also relates to tissue culture protocols to promote the in vitro growth of tissues and tissue constructs.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 8. Document ID: US 20030021785 A1

L6: Entry 8 of 20 File: PGPB Jan 30, 2003

PGPUB-DOCUMENT-NUMBER: 20030021785
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030021785 A1

TITLE: Use of rank antagonists to treat cancer

PUBLICATION-DATE: January 30, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dougall, William C.	Seattle	WA	US	

US-CL-CURRENT: 424/146.1; 514/12, 514/44

ABSTRACT:

Provided herein are methods of treating cancer by administering an effective amount of an agent that antagonizes the interaction between RANK and RANKL.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 9. Document ID: US 20030017151 A1

L6: Entry 9 of 20 File: PGPB Jan 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030017151
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030017151 A1

TITLE: Therapeutic use of rank antagonists

PUBLICATION-DATE: January 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dougall, William C.	Seattle	WA	US	
Anderson, Dirk M.	Seattle	WA	US	

US-CL-CURRENT: 424/143.1; 514/44

ABSTRACT:

Provided herein are methods of treating various medical conditions that require the formation of new bone by administering an effective amount of a RANK antagonist. Antagonists suitable for use in the subject methods include soluble RANK polypeptides that bind RANKL, antisense oligonucleotides that inhibit RANK activity, antibodies specific for RANK or RANKL and osteoprotegerin.

☐ 10. Document ID: US 20030013651 A1

L6: Entry 10 of 20 File: PGPB Jan 16, 2003

PGPUB-DOCUMENT-NUMBER: 20030013651
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030013651 A1

TITLE: Stimulation of osteogenesis using rank ligand fusion proteins

PUBLICATION-DATE: January 16, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lam, Jonathan	West Memphis	AR	US	
Ross, F. Patrick	Olivette	MO	US	
Teitelbaum, Steven L.	University City	MO	US	

US-CL-CURRENT: 514/12

ABSTRACT:

A method of enhancing bone formation comprising administering an effective amount of 1) an oligomeric complex of one or more of RANKL, a RANKL fusion protein or an analog, derivative or mimic thereof, 2) an osteogenic compound capable of enhancing activity of one or more intracellular proteins in osteoblasts or osteoblast precursors, wherein said activity is indicative of bone formation, or 3) an osteogenic compound capable of inactivating one or more phosphatases in osteoblasts or osteoblast precursors, wherein said inactivation is indicative of bone formation. The method also may be used to treat a disease or condition manifested at least in part by the loss of bone mass by administering to a patient a pharmaceutical composition comprising an oligomeric complex or osteogenic compound disclosed herein.

☐ 11. Document ID: US 20020160416 A1

L6: Entry 11 of 20 File: PGPB Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020160416
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020160416 A1

TITLE: Receptor from TNF family

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Boyle, William J.	Moorpark	CA	US	
Hsu, Hailing	Moorpark	CA	US	

US-CL-CURRENT: 435/7.1; 530/389.1, 530/395, 536/53

ABSTRACT:

A member of the tumor necrosis factor family and its receptor are described. This member is primarily expressed in B cells and its expression correlates to increases in the number of B cells and immunoglobulins produced. The natural, preferred human ortholog is here called AGP-3R. The protein is a type III transmembrane protein and has an amino terminal extracellular domain, a transmembrane domain, and a carboxy terminal intracellular domain. AGP-3R-related proteins of the invention may be membrane-associated or in soluble form, recombinantly produced or isolated after natural production. The invention provides for nucleic acids encoding such AGP-3R-related proteins, vectors and host cells expressing the polypeptides, and methods for producing recombinant proteins. Antibodies or fragments thereof that specifically bind the proteins are also provided.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc

☐ 12. Document ID: US 20020150977 A1

L6: Entry 12 of 20 File: PGPB Oct 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020150977
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020150977 A1

TITLE: TNF receptor-like molecules and uses thereof

PUBLICATION-DATE: October 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Theill, Lars Eyde	Thousand Oaks	CA	US	
Yeh, Richard	Ithaca	NY	US	

Silbiger, Scott Michael	Woodland Hills	CA	US
Yu, Gang	Thousand Oaks	CA	US
Senaldi, Giorgio	Thousand Oaks	CA	US

US-CL-CURRENT: 435/69.1; 435/194, 435/320.1, 435/325, 530/350, 536/23.5

ABSTRACT:

Novel MK61 polypeptides and nucleic acid molecules encoding the same. The invention also provides vectors, host cells, selective binding agents, and methods for producing MK61 polypeptides. Also provided for are methods for the treatment, diagnosis, amelioration, or prevention of diseases with MK61 polypeptides.

☐ 13. Document ID: US 20020086312 A1

L6: Entry 13 of 20 File: PGPB Jul 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020086312
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020086312 A1

TITLE: Screening assays for agonists and antagonists of receptor activator of NF-kappa B

PUBLICATION-DATE: July 4, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dougall, William C.	Seattle	WA	US	

US-CL-CURRENT: 435/6; 435/7.21

ABSTRACT:

The present invention provides methods for screening for a molecule that antagonizes or agonizes RANK activity. One aspect of the invention involves the growth of RANK responsive cells in semi-solid medium, wherein exposure to a RANK antagonist promotes colony formation. Other aspects of the invention rely on promoter/reporter constructs using RANK responsive promoters derived from the MMP-9 and TRAP genes. Additional aspects of the invention exploit the ability of RANK to activate c-src activity, F-actin ring formation and CaPO.sub.4 resorption.

☐ 14. Document ID: US 20020086018 A1

L6: Entry 14 of 20 File: PGPB Jul 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020086018
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020086018 A1

TITLE: Methods and compositions of matter concerning APRIL/G70, BCMA, BLYS/AGP-3, and TACI

PUBLICATION-DATE: July 4, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Theill, Lars Eyde	Thousand Oaks	CA	US	
Yu, Gang	Thousand Oaks	CA	US	

US-CL-CURRENT: 424/146.1; 424/153.1

ABSTRACT:

This invention concerns interactions among APRIL/G70, AGP-3/BLYS, BCMA, and TACI and related methods of use and compositions of matter. It has been found that (1) sAPRIL/G70 binds to the cell-surface receptors BCMA and TACI on T and B lymphoma cells, resulting in stimulation of proliferation of primary human and mouse B and T cells both in vitro and in vivo; (2) APRIL competes with AGP3's binding to TACI and BCMA; (3) sBCMA inhibits APRIL and AGP3 binding to its receptors; (4) sBCMA ameliorates T cell dependent and T cell independent humoral immune responses in vivo; (5) sTACI inhibits APRIL and AGP3 binding to its receptors and ameliorates T cell dependent and T cell independent humoral immune responses in vivo; and (6) BCMA exhibits similarity with TACI within a single cysteine rich domain located N-terminal to a potential transmembrane domain. These discoveries provides a strategy for development of therapeutics for treatment of autoimmune diseases, and cancer, for prevention of transplant rejection. Disease states and disease parameters associated with APRIL and AGP-3 may be affected by modulation of BCMA or TACI; disease states and parameters associated with TACI can be affected by modulation of APRIL; disease states and parameters can be affected by modulation of any of TACI, BCMA, APRIL and AGP-3 by a single therapeutic agent or two or more therapeutic agents together.

☐ 15. Document ID: US 20020081296 A1

L6: Entry 15 of 20 File: PGPB Jun 27, 2002

PGPUB-DOCUMENT-NUMBER: 20020081296
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020081296 A1

TITLE: Methods and compositions of matter concerning APRIL/G70, BCMA, BLYS/AGP-3 and TACI

PUBLICATION-DATE: June 27, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Theill, Lars Eyde	Thousand Oaks	CA	US	
Yu, Gang	Thousand Oaks	CA	US	

US-CL-CURRENT: 424/144.1; 424/155.1

ABSTRACT:

This invention concerns interactions among APRIL/G70, AGP-3/BLYS, BCMA, and TACI and related methods of use and compositions of matter. It has been found that (1) sAPRIL/G70 binds to the cell-surface receptors BCMA and TACI on T and B lymphoma cells, resulting in stimulation of proliferation of primary human and mouse B and T cells both in vitro and in vivo; (2) APRIL competes with AGP3's binding to TACI and BCMA; (3) sBCMA inhibits APRIL and AGP3 binding to its receptors; (4) sBCMA ameliorates T cell dependent and T cell independent humoral immune responses in vivo; (5) sTACI inhibits APRIL and AGP3 binding to its receptors and ameliorates T cell dependent and T cell independent humoral immune responses in vivo; and (6) BCMA exhibits similarity with TACI within a single cysteine rich domain located N-terminal to a potential transmembrane domain. These discoveries provides a strategy for development of therapeutics for treatment of autoimmune diseases, and cancer, for prevention of transplant rejection. Disease states and disease parameters associated with APRIL and AGP-3 may be affected by modulation of BCMA or TACI; disease states and parameters associated with TACI can be affected by modulation of APRIL;

disease states and parameters can be affected by modulation of any of TACI, BCMA, APRIL and AGP-3 by a single therapeutic agent or two or more therapeutic agents together.

☐ 16. Document ID: US 6774106 B2

L6: Entry 16 of 20 File: USPT Aug 10, 2004

US-PAT-NO: 6774106
DOCUMENT-IDENTIFIER: US 6774106 B2

TITLE: Methods and compositions of matter concerning APRIL/G70, BCMA, BLYS/AGP-3 and TACI

DATE-ISSUED: August 10, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Theill; Lars Eyde	Thousand Oaks	CA		
Yu; Gang	Thousand Oaks	CA		

US-CL-CURRENT: 514/12; 424/185.1, 424/192.1

ABSTRACT:

This invention concerns interactions among APRIL/G70, AGP-3/BLYS, BCMA, and TACI and related methods of use and compositions of matter. It has been found that (1) sAPRIL/G70 binds to the cell-surface receptors BCMA and TACI on T and B lymphoma cells, resulting in stimulation of proliferation of primary human and mouse B and T cells both in vitro and in vivo; (2) APRIL competes with AGP3's binding to TACI and BCMA; (3) sBCMA inhibits APRIL and AGP3 binding to its receptors; (4) sBCMA ameliorates T cell dependent and T cell independent humoral immune responses in vivo; (5) sTACI inhibits APRIL and AGP3 binding to its receptors and ameliorates T cell dependent and T cell independent humoral immune responses in vivo; and (6) BCMA exhibits similarity with TACI within a single cysteine rich domain located N-terminal to a potential transmembrane domain. These discoveries provides a strategy for development of therapeutics for treatment of autoimmune diseases, and cancer, for prevention of transplant rejection. Disease states and disease parameters associated with APRIL and AGP-3 may be affected by modulation of BCMA or TACI; disease states and parameters associated with TACI can be affected by modulation of APRIL; disease

states and parameters can be affected by modulation of any of TACI, BCMA, APRIL and AGP-3 by a single therapeutic agent or two or more therapeutic agents together.

2 Claims, 59 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 49

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Des

☐ 17. Document ID: US 6316408 B1

L6: Entry 17 of 20 File: USPT Nov 13, 2001

US-PAT-NO: 6316408
DOCUMENT-IDENTIFIER: US 6316408 B1
**** See image for Certificate of Correction ****

TITLE: Methods of use for osetoprotegerin binding protein receptors

DATE-ISSUED: November 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

US-CL-CURRENT: 514/12; 530/350

ABSTRACT:

A novel polypeptide, osteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

Receptors for osteoprotegerin binding proteins are also described. The receptors, and agonists and antagonists thereof, may be used to treat bone diseases.

9 Claims, 45 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 30

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Des

☐ 18. Document ID: US 6180355 B1

L6: Entry 18 of 20 File: USPT Jan 30, 2001

US-PAT-NO: 6180355
DOCUMENT-IDENTIFIER: US 6180355 B1
**** See image for Certificate of Correction ****

TITLE: Method for diagnosing and treating chronic pelvic pain syndrome

DATE-ISSUED: January 30, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Alexander; Richard B.	Ellicott City	MD		
Ponniah; Sathibalan	Ellicott City	MD		

US-CL-CURRENT: 435/7.1; 435/7.8

ABSTRACT:

The present invention provides a superior method of diagnosing Chronic Pelvic Pain Syndrome in men comprising measuring levels of cytokines in semen or components or fractions of semen. The invention also provides a method of treating a condition associated with elevated levels of a cytokine, such as TNF-.alpha., in semen or a component or fraction thereof, comprising administering a therapeutically effective amount of an ant-cytokine compound or composition, such as an anti-TNF-.alpha. compound or composition.

14 Claims, 8 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 8

☐ 19. Document ID: US 5843678 A

L6: Entry 19 of 20 File: USPT Dec 1, 1998

US-PAT-NO: 5843678
DOCUMENT-IDENTIFIER: US 5843678 A

TITLE: Osteoprotegerin binding proteins

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boyle; William J.	Moorpark	CA		

US-CL-CURRENT: 435/7.1; 514/2, 530/300, 530/350

ABSTRACT:

A novel polypeptide, osteoprotegerin binding protein, involved in osteolcast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided.

15 Claims, 10 Drawing figures
Exemplary Claim Number: 1

Number of Drawing Sheets: 10

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc

☐ 20. Document ID: WO 9846751 A1

L6: Entry 20 of 20 File: EPAB Oct 22, 1998

PUB-NO: WO009846751A1
DOCUMENT-IDENTIFIER: WO 9846751 A1
TITLE: OSTEOPROTEGERIN BINDING PROTEINS AND RECEPTORS

PUBN-DATE: October 22, 1998

INVENTOR-INFORMATION:

NAME	COUNTRY
BOYLE, WILLIAM J	US

INT-CL (IPC): C12 N 15/12; C12 N 15/11; C12 N 1/21; C12 N 5/10; C07 K 14/705; C07 K 16/28; G01 N 33/50; G01 N 33/577; G01 N 33/68; A61 K 31/70; A61 K 38/17; A61 K 39/395

EUR-CL (EPC): C07K014/705; C07K014/705

ABSTRACT:

CHG DATE=19990905 STATUS=O>A novel polypeptide, osteoprotegerin binding protein, involved in osteoclast maturation has been identified based upon its affinity for osteoprotegerin. Nucleic acid sequences encoding the polypeptide, or a fragment, analog or derivative thereof, vectors and host cells for production, methods of preparing osteoprotegerin binding protein, and binding assays are also described. Compositions and methods for the treatment of bone diseases such as osteoporosis, bone loss due to arthritis or metastasis, hypercalcemia, and Paget's disease are also provided. Receptors for osteoprotegerin binding proteins are also described. The receptors, and agonists and antagonists thereof, may be used to treat bone diseases.

Full | Ti | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc

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Terms	Documents
osteoprotegerin binding protein	20

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☐ 1. Document ID: US 20040170621 A1

Using default format because multiple data bases are involved.

L9: Entry 1 of 27 File: PGPB Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040170621
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040170621 A1

TITLE: Method of resisting osteoclast formation

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Roodman, G. David	Pittsburgh	PA	US	
Choi, Sun Jin	Wexford	PA	US	
Oba, Yasuo	Kochi		JP	

US-CL-CURRENT: 424/130.1; 514/44

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 2. Document ID: US 20040109854 A1

L9: Entry 2 of 27 File: PGPB Jun 10, 2004

PGPUB-DOCUMENT-NUMBER: 20040109854
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040109854 A1

TITLE: Novel traf6 inhibiting protein

PUBLICATION-DATE: June 10, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lee, Zang-Hee	Bongseon-dong		KR	
Kim, Hong-Hee	Bongseon-dong		KR	

US-CL-CURRENT: 424/130.1; 435/184, 435/320.1, 435/325, 435/6, 435/69.1, 530/388.26, 536/23.2

ABSTRACT:

Disclosed are novel isolated tumor necrosis factor receptor associated factor (TRAF)

6 inhibiting proteins or functional derivatives thereof The proteins contain a KRAB domain at their N-termini and 14 C.sub.2H.sub.2 type zinc finger motifs at their C-termini, bind to TFAF6 but do not bind to TRAF2 and TRAF3, and inhibit activities of NF-.kappa.B or AP-1 in a signal transduction pathway of tumor necrosis factor (TNF) by interacting with TRAF6.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Des

☐ 3. Document ID: US 20040013664 A1

L9: Entry 3 of 27 File: PGPB Jan 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040013664
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040013664 A1

TITLE: Tumor necrosis factor receptors 6 alpha & 6 beta

PUBLICATION-DATE: January 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gentz, Reiner L.	Belo Horizonte-Mg	CA	BR	
Yu, Guo-Liang	Berkeley	MD	US	
Ni, Jian	Germantown	MD	US	
Ebner, Reinhard	Gaithersburg	MD	US	
Feng, Ping	Germantown	MD	US	
Ruben, Steven M.	Brookeville		US	

US-CL-CURRENT: 424/130.1; 514/12

ABSTRACT:

The present invention relates to novel Tumor Necrosis Factor Receptor proteins. In particular, isolated nucleic acid molecules are provided encoding the human TNFR-6.alpha. & -6.beta. proteins. TNFR-6.alpha. & -6.beta. polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of TNFR-6.alpha. & -6.beta. activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating immune system-related disorders.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Des

☐ 4. Document ID: US 20040005314 A1

L9: Entry 4 of 27 File: PGPB Jan 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040005314
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040005314 A1

TITLE: Apo-2l receptor agonist and cpt-11 synergism

PUBLICATION-DATE: January 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Escandon, Enrique	Belmont	CA	US	
Kelley, Sean K	San Mateo	CA	US	
Xiang, Hong	Palo Alto	CA	US	
Fox, Judith A			US	

US-CL-CURRENT: 424/141.1; 424/144.1, 600/1

ABSTRACT:

Methods of using effective amounts of Apo-2L receptor agonists and CPT-11 to induce apoptosis and suppress growth of cancer cells are provided.

☐ 5. Document ID: US 20040005312 A1

L9: Entry 5 of 27 File: PGPB Jan 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040005312
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040005312 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: January 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ashkenazi, Avi J.	San Mateo	CA	US	
Baker, Kevin P.	Darnestown	MD	US	
Botstein, David	Belmont	CA	US	
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Ferrara, Napoleone	San Francisco	CA	US	
Filvaroff, Ellen	San Francisco	CA	US	
Fong, Sherman	Alameda	CA	US	
Gao, Wei-Qiang	Palo Alto	CA	US	
Gerber, Hanspeter	San Francisco	CA	US	
Gerritsen, Mary E.	San Mateo	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Burlingame	CA	US	
Grimaldi, J. Christopher	San Francisco	CA	US	
Gurney, Austin L.	Belmont	CA	US	
Hillan, Kenneth J.	San Francisco	CA	US	
Kljavin, Ivar J.	Lafayette	CA	US	
Kuo, Sophia S.	San Francisco	CA	US	
Napier, Mary A.	Hillsborough	CA	US	

Pan, James	Belmont	CA	US
Paoni, Nicholas F.	Belmont	CA	US
Roy, Margaret Ann	San Francisco	CA	US
Shelton, David L.	Oakland	CA	US
Stewart, Timothy A.	San Francisco	CA	US
Tumas, Daniel	Orinda	CA	US
Williams, P. Mickey	Half Moon Bay	CA	US
Wood, William I.	Hillsborough	CA	US

US-CL-CURRENT: 424/130.1; 435/183, 435/320.1, 435/325, 435/69.1, 530/350, 530/388.1, 536/23.2

ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

☐ 6. Document ID: US 20030198637 A1

L9: Entry 6 of 27 File: PGPB Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030198637
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030198637 A1

TITLE: Antibody selective for a tumor necrosis factor-related apoptosis-inducing ligand receptor and uses thereof

PUBLICATION-DATE: October 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Zhou, Tong	Birmingham	AL	US	
Kimberly, Robert P.	Birmingham	AL	US	
Koopman, William J.	Indian Springs	AL	US	
LoBuglio, Albert F.	Birmingham	AL	US	
Buchsbaum, Donald J.	Montevallo	AL	US	

US-CL-CURRENT: 424/141.1; 424/145.1, 530/388.15, 530/388.24

ABSTRACT:

An antibody of the invention interacts with human DR5 or with human DR4 to produce agonistic or antagonistic effects downstream of the receptor including inhibition of cell proliferation and apoptosis. Nucleic acid sequences and amino acid sequences of DR5 and DR4 antibodies have been elucidated and vectors and cells containing and expressing these sequences have been generated. Methods and uses for the antibodies are detailed including treatment of apoptosis-related disease and treatment of

dysregulated cell growth.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Des

☐ 7. Document ID: US 20030180287 A1

L9: Entry 7 of 27 File: PGPB Sep 25, 2003

PGPUB-DOCUMENT-NUMBER: 20030180287
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030180287 A1

TITLE: Polypeptide formulation

PUBLICATION-DATE: September 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gombotz, Wayne R.	Kenmore	WA	US	
Remmele, Richard L. JR.	Thousand oaks	CA	US	

US-CL-CURRENT: 424/130.1; 514/565

ABSTRACT:

The present invention relates to an aqueous pharmaceutical composition suitable for long-term storage of polypeptides containing an Fc domain of an immunoglobulin, methods of manufacture, methods of administration and kits containing same.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Des

☐ 8. Document ID: US 20030165496 A1

L9: Entry 8 of 27 File: PGPB Sep 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030165496
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030165496 A1

TITLE: Humanized antibodies that recognize beta amyloid peptide

PUBLICATION-DATE: September 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Basi, Guriq	Palo Alto	CA	US	
Saldanha, Jose	Enfield	CA	GB	
Yednock, Ted	Forest Knolls		US	

US-CL-CURRENT: 424/141.1; 435/328, 530/388.15

ABSTRACT:

The invention provides improves agents and methods for treatment of diseases associated with amyloid deposits of A.beta. in the brain of a patient. Preferred agents include humanized antibodies.

☐ 9. Document ID: US 20030157094 A1

L9: Entry 9 of 27 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157094
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030157094 A1

TITLE: Use of il-18 inhibitors

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chvatchko, Yolande	Configno n	CO	CH	
Dinarello, Charles	Boulder	CO	US	
Plater-Zyberk, Christine	Geneva		CH	
Van Deventer, Santer	Haarlem		NL	
Rubinstein, Menachem	Givat Shmuel		IL	
Novick, Daniela	Rehovot		IL	
Kim, Soo-Hyun	Denver		US	

US-CL-CURRENT: 424/141.1; 424/145.1

ABSTRACT:

The invention relates to the use of inhibitors of IL-18 in the preparation of a medicament for treatment and/or prevention of liver injury. The invention further relates to the use of IL-18 inhibitors in the preparation of a medicament for treatment and/or prevention of arthritis, in particular rheumatoid arthritis. In addition to this, the invention relates to the use of inhibitors of IL-18 in the preparation of a medicament for treatment and/or prevention of inflammatory bowel diseases, in particular of Crohn's disease and ulcerative colitis.

☐ 10. Document ID: US 20030027284 A1

L9: Entry 10 of 27 File: PGPB Feb 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030027284
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030027284 A1

TITLE: TUMOR NECROSIS FACTOR-GAMMA

PUBLICATION-DATE: February 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
YU, GUO-LIANG	SAN MATEO	CA	US	
NI, JIAN	ROCKVILLE	MD	US	
ROSEN, CRAIG A.	LAYTONSVILLE	MD	US	
ZHANG, JUN	BETHESDA	MD	US	

US-CL-CURRENT: 435/69.5; 424/136.1, 435/320.1, 435/325, 514/12, 536/23.5

ABSTRACT:

Human TNF-gamma-alpha and TNF-gamma-beta polypeptides and DNA (RNA) encoding such polypeptides and a procedure for producing such polypeptides by recombinant techniques is disclosed. Also disclosed are methods for utilizing such polypeptides to inhibit cellular growth, for example in a tumor or cancer, for facilitating wound-healing, to provide resistance against infection, induce inflammatory acitvities, and stimulating the growth of certain cell types to treat diseases, for example restenosis. Also disclosed are diagnostic methods for detecting a mutation in the TNF-gamma-alpha and TNF-gamma-beta nucleic acid sequences or overexperession of the TNF-gamma-alpha and TNF-gamma-beta polypeptides. Antagonists against such polypeptides and their use as a therapeutic to treat cachexia, septic shock, cerebral malaria, inflammation, arthritis and graft-rejection are also disclosed.

☐ 11. Document ID: US 20030022276 A1

L9: Entry 11 of 27 File: PGPB Jan 30, 2003

PGPUB-DOCUMENT-NUMBER: 20030022276
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030022276 A1

TITLE: DENDRITIC ENRICHED SECRETED LYMPHOCYTE ACTIVATION MOLECULE

PUBLICATION-DATE: January 30, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
YOUNG, PAUL	GAITHERSBURG	MD	US	
RUBEN, STEVEN M.	OLNEY	MD	US	

US-CL-CURRENT: 435/69.1; 424/130.1, 435/320.1, 435/325, 435/7.1, 514/2, 530/350, 536/23.5

ABSTRACT:

The present invention relates to a novel human protein called Dendritic Enriched Secreted Lymphocyte Activation Molecule, and isolated polynucleotides encoding this protein. Also provided are vectors, host cells, antibodies, and recombinant methods for producing this human protein. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to this novel human protein.

☐ 12. Document ID: US 20020168359 A1

L9: Entry 12 of 27 File: PGPB Nov 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020168359
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020168359 A1

TITLE: Human tumor necrosis factor receptor TR9

PUBLICATION-DATE: November 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ni, Jian	Germantown	MD	US	
Yu, Guo-Liang	Berkeley	CA	US	
Fan, Ping	Potomac	MD	US	
Gentz, Reiner L.	Rockville	MD	US	

US-CL-CURRENT: 424/139.1; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.2

ABSTRACT:

The present invention relates to a novel member of the tumor necrosis factor family of receptors. In particular, isolated nucleic acid molecules are provided encoding the human TR9 receptor. TR9 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of TR9 receptor activity.

☐ 13. Document ID: US 20020159998 A1

L9: Entry 13 of 27 File: PGPB Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020159998
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020159998 A1

TITLE: Methods of treating multiple myeloma and myeloma-induced bone resorption using integrin antagonists

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mundy, Gregory R.	San Antonio	TX	US	
Yoneda, Toshiyuki	San Antonio	TX	US	

US-CL-CURRENT: 424/143.1; 424/141.1

ABSTRACT:

Antagonists of .alpha.4 integrin/.alpha.4 integrin ligand adhesion, which inhibit the biological effects of such adhesion are described and methods for their use are detailed. Such antagonists are useful in suppressing bone destruction associated with multiple myeloma. The homing of multiple myeloma cells to bone marrow and their .alpha.4 integrin-dependent release of bone-resorbing factors, resulting in bone destruction in patients with multiple myeloma, is inhibited.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 14. Document ID: US 20020081720 A1

L9: Entry 14 of 27 File: PGPB Jun 27, 2002

PGPUB-DOCUMENT-NUMBER: 20020081720
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020081720 A1

TITLE: Receptor activator of NF-kappaB

PUBLICATION-DATE: June 27, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dougall, William C.	Seattle	WA	US	
Anderson, Dirk M.	Seattle	WA	US	
Galibert, Laurent	Seattle	WA	US	
Maraskovsky, Eugene	Caulfied Nth		AU	

US-CL-CURRENT: 435/320.1; 424/130.1, 435/325, 435/69.4, 530/324, 530/387.9, 530/399, 536/23.51

ABSTRACT:

Isolated receptors, DNAs encoding such receptors, and pharmaceutical compositions made therefrom, are disclosed. The isolated receptors can be used to regulate an immune response. The receptors are also useful in screening for inhibitors thereof.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Des

☐ 15. Document ID: US 20020048786 A1

L9: Entry 15 of 27 File: PGPB Apr 25, 2002

PGPUB-DOCUMENT-NUMBER: 20020048786
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020048786 A1

TITLE: Human G-protein Chemokine Receptor HDGNR10

PUBLICATION-DATE: April 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosen, Craig A.	Laytonsville	MD	US	
Roschke, Viktor	Rockville	MD	US	
Li, Yi	Sunnyvale	CA	US	
Ruben, Steven M.	Olney	MD	US	

US-CL-CURRENT: 435/69.1; 424/130.1, 435/325, 435/7.2, 514/12, 536/23.5

ABSTRACT:

The present invention relates to a novel human protein called Human G-protein Chemokine Receptor (CCR5) HDGNR10, and isolated polynucleotides encoding this protein. The invention is also directed to human antibodies that bind Human G-protein Chemokine Receptor (CCR5) HDGNR10 and to polynucleotides encoding those antibodies. Also provided are vectors, host cells, antibodies, and recombinant methods for producing Human G-protein Chemokine Receptor (CCR5) HDGNR10 and human anti-Human G-protein Chemokine Receptor (CCR5) HDGNR10 antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating diseases, disorders, and/or conditions related to this novel human protein and these novel human antibodies.

☐ 16. Document ID: US 20020041874 A1

L9: Entry 16 of 27 File: PGPB Apr 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020041874
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020041874 A1

TITLE: Methods of treating multiple myeloma and myeloma-induced bone resorption using integrin antagonists

PUBLICATION-DATE: April 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mundy, Gregory R.	San Antonio	TX	US	
Yoneda, Toshiyuki	San Antonio	TX	US	

US-CL-CURRENT: 424/131.1; 424/133.1, 424/141.1, 424/178.1

ABSTRACT:

Antagonists of .alpha.4 integrin/.alpha.4 integrin ligand adhesion, which inhibit the biological effects of such adhesion are described and methods for their use are detailed. Such antagonists are useful in suppressing bone destruction associated with multiple myeloma. The homing of multiple myeloma cells to bone marrow and their .alpha.4 integrin-dependent release of bone-resorbing factors, resulting in bone destruction in patients with multiple myeloma, is inhibited.

☐ 17. Document ID: US 20020022028 A1

L9: Entry 17 of 27 File: PGPB Feb 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020022028
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020022028 A1

TITLE: Methods of treating multiple myeloma and myeloma-induced bone resorption using integrin antagonists

PUBLICATION-DATE: February 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mundy, Gregory R.	San Antonio	TX	US	
Yoneda, Toshiyuki	San Antonio	TX	US	

US-CL-CURRENT: 424/142.1; 424/133.1

ABSTRACT:

Antagonists of alpha 4 integri/alpha 4 integrin ligand adhesion, which inhibit the biological effects of such adhesion are described and methods for their use are detailed. Such antagonists are eseful in supressing bone destruction associated with multiple myeloma. The homing of multiple myeloma cells to bone marrow and their alpha 4 integrin-dependent release of bone-resorbing factors, resulting in bone destruction in patients with multiple myeloma, is inhibited

☐ 18. Document ID: US 6764679 B2

L9: Entry 18 of 27 File: USPT Jul 20, 2004

US-PAT-NO: 6764679
DOCUMENT-IDENTIFIER: US 6764679 B2

TITLE: Antibodies to DcR3 Polypeptide, a TNFR Homolog

DATE-ISSUED: July 20, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ashkenazi; Avi J.	San Mateo	CA		
Botstein; David	Belmont	CA		
Dodge; Kelly H.	San Mateo	CA		
Goddard; Audrey	San Francisco	CA		
Gurney; Austin L.	Belmont	CA		
Kim; Kyung Jin	Los Altos	CA		
Lawrence; David A.	San Francisco	CA		
Pitti; Robert	El Cerrito	CA		

Roy; Margaret A.	San Francisco	CA
Tumas; Daniel B.	Orinda	CA
Wood; William I.	Hillsborough	CA

US-CL-CURRENT: 424/130.1; 424/133.1, 424/138.1, 424/141.1, 424/143.1, 435/69.7, 530/350, 530/387.1, 530/387.3, 530/387.7 , 530/387.9, 530/388.15, 530/388.22, 530/389.1, 530/389.7

ABSTRACT:

A TNFR homolog, identified as DcR3, is provided. Nucleic acid molecules encoding DcR3, chimeric molecules and antibodies to DcR3 are also provided.

33 Claims, 22 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 13

☐ 19. Document ID: US 6756480 B2

L9: Entry 19 of 27 File: USPT Jun 29, 2004

US-PAT-NO: 6756480
DOCUMENT-IDENTIFIER: US 6756480 B2

TITLE: Modulators of receptors for parathyroid hormone and parathyroid hormone-related protein

DATE-ISSUED: June 29, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kostenuik; Paul	Newbury Park	CA		
Liu; Chuan-Fa	Longmont	CO		
Lacey; David Lee	Newbury Park	CA		

US-CL-CURRENT: 530/387.1; 424/130.1, 424/178.1

ABSTRACT:

The present invention concerns therapeutic agents that modulate the activity of PTH and PTHrP. In accordance with the present invention, modulators of PTH and PTHrP comprise: (a) a PTH/PTHrP modulating domain; and (b) a vehicle, such as a polymer (e.g., PEG or dextran) or an Fc domain, which is preferred;

wherein the vehicle is covalently attached to the C-terminus of the PTH/PTHrP modulating domain. The vehicle and the PTH/PTHrP modulating domain may be linked through the N- or C-terminus of the PTH/PTHrP modulating domain, as described further below. The preferred vehicle is an Fc domain, and the preferred Fc domain is an IgG Fc domain. Preferred PTH/PTHrP modulating domains comprise the PTH and PTHrP-derived amino acid sequences described hereinafter. Other PTH/PTHrP modulating domains can be generated by phage display, RNA-peptide screening and the other techniques mentioned herein. Such peptides typically will be modulators of both PTH activity and PTHrP activity, although such techniques can be used to generate peptide sequences that serve as selective modulators (e.g., agonists of PTH activity but not PTHrP

activity).

24 Claims, 29 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 15

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Des

☐ 20. Document ID: US 6733753 B2

L9: Entry 20 of 27 File: USPT May 11, 2004

US-PAT-NO: 6733753
DOCUMENT-IDENTIFIER: US 6733753 B2

TITLE: Composition and method for treating inflammatory diseases

DATE-ISSUED: May 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boone; Thomas C.	Newbury Park	CA		
Hershenson; Susan	Newbury Park	CA		
Bevilacqua; Michael P.	Boulder	CO		
Collins; David S.	Fishers	IN		

US-CL-CURRENT: 424/134.1; 514/12, 530/324

ABSTRACT:

A protein which exhibits a therapeutic effect on inflammation and is useful for treating IL-1-mediated inflammatory diseases, particularly diseases of the joint.

16 Claims, 14 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 14

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Des

☐ 21. Document ID: US 6605699 B1

L9: Entry 21 of 27 File: USPT Aug 12, 2003

US-PAT-NO: 6605699
DOCUMENT-IDENTIFIER: US 6605699 B1

TITLE: Galectin-11 polypeptides

DATE-ISSUED: August 12, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY

Ni; Jian	Rockville	MD
Gentz; Reiner L.	Rockville	MD
Rosen; Craig A.	Laytonsville	MD
Liu; Fu-Tong	San Diego	CA

US-CL-CURRENT: 530/350; 424/134.1, 424/184.1, 424/185.1, 424/192.1, 435/69.1, 435/71.1, 530/387.3, 530/395, 530/396

ABSTRACT:

The present invention relates to galectin 11 proteins which are members of the galectin superfamily. In particular, the present invention relates to full-length polypeptides, fragments, and variants of galectin 11.

42 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Desc

☐ 22. Document ID: US 6562948 B2

L9: Entry 22 of 27 File: USPT May 13, 2003

US-PAT-NO: 6562948
DOCUMENT-IDENTIFIER: US 6562948 B2

TITLE: Receptor activator of NF-.kappa.B

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; Dirk M.	Seattle	WA		

US-CL-CURRENT: 530/387.9; 424/130.1, 424/143.1, 435/320.1, 435/331, 435/334, 435/69.1, 435/7.1, 530/300, 530/350, 530/388.1, 536/23.5

ABSTRACT:

Provided herein are isolated antibodies that specifically bind a RANK polypeptide.

5 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw Desc

☐ 23. Document ID: US 6528482 B1

L9: Entry 23 of 27 File: USPT Mar 4, 2003

US-PAT-NO: 6528482

DOCUMENT-IDENTIFIER: US 6528482 B1

TITLE: Receptor activator of NF-.kappa.B

DATE-ISSUED: March 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Anderson; Dirk M.	Seattle	WA		
Galibert; Laurent	Seattle	WA		
Maraskovsky; Eugene	Caulfield Nth			AU
Dougall; William C.	Seattle	WA		

US-CL-CURRENT: 514/2; 424/130.1, 435/320.1, 435/375, 435/69.1, 435/7.1, 530/300, 530/350, 530/386

ABSTRACT:

Isolated receptors, DNAs encoding such receptors, and pharmaceutical compositions made therefrom, are disclosed. The isolated receptors can be used to regulate an immune response. The receptors are also useful in screening for inhibitors thereof.

10 Claims, 2 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

☐ 24. Document ID: US 6455040 B1

L9: Entry 24 of 27 File: USPT Sep 24, 2002

US-PAT-NO: 6455040
DOCUMENT-IDENTIFIER: US 6455040 B1

TITLE: Tumor necrosis factor receptor 5

DATE-ISSUED: September 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wei; Ying-Fei	Berkeley	CA		
Ni; Jian	Rockville	MD		
Gentz; Reiner L.	Rockville	MD		
Ruben; Steven M.	Odenton	MD		

US-CL-CURRENT: 424/134.1; 424/138.1, 424/139.1, 424/143.1, 424/178.1, 435/328, 435/334, 435/7.21, 530/387.3, 530/387.9, 530/388.22

ABSTRACT:

The present invention relates to a novel human gene encoding a polypeptide which is a member of the TNF receptor family, and has now been found to bind TRAIL. More specifically, an isolated nucleic acid molecule is provided encoding a human

polypeptide named tumor necrosis factor receptor-5, sometimes referred to as "TNFR-5" or "TR5," and now referred to hereinafter as "TRAIL receptor without intracellular domain" or "TRID." TRID polypeptides are also provided, as are vectors, host cells, and recombinant methods for producing the same as well as anti-TRID antibodies. The invention further relates to screening methods for identifying agonists or antagonists of TRAIL polypeptide activity. Also provided are diagnostic and therapeutic methods utilizing such compositions.

31 Claims, 24 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 23

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Des

☐ 25. Document ID: US 6406867 B1

L9: Entry 25 of 27 File: USPT Jun 18, 2002

US-PAT-NO: 6406867
DOCUMENT-IDENTIFIER: US 6406867 B1
**** See image for Certificate of Correction ****

TITLE: Antibody to human endokine alpha and methods of use

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Guo-Liang	Berkeley	CA		
Ni; Jian	Rockville	MD		
Rosen; Craig A.	Laytonsville	MD		

US-CL-CURRENT: 435/7.2; 424/130.1, 424/139.1, 424/141.1, 424/142.1, 424/158.1, 530/387.1, 530/387.9, 530/388.1, 530/388.15, 530/388.24, 530/389.2

ABSTRACT:

The present invention concerns a novel member of the tumor necrosis factor (TNF) family of cytokines. In particular, isolated nucleic acid molecules are provided encoding the endokine alpha protein. Endokine alpha polypeptides are also provided, as are vectors, host cells and recombinant methods for producing the same. Antibodies and antibody fragments which specifically bind the polypeptides of the invention are also provided, as well as methods for detecting the polypeptides of the invention using said antibodies and antibody fragments. Also provided are diagnostic and therapeutic methods concerning TNF family-related disorders.

56 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. Des

☐ 26. Document ID: US 6358508 B1

L9: Entry 26 of 27 File: USPT Mar 19, 2002

US-PAT-NO: 6358508
DOCUMENT-IDENTIFIER: US 6358508 B1

TITLE: Antibodies to human tumor necrosis factor receptor TR9

DATE-ISSUED: March 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ni; Jian	Rockville	MD		
Yu; Guo-Liang	Berkeley	CA		
Fan; Ping	Gaithersburg	MD		
Gentz; Reiner L.	Rockville	MD		

US-CL-CURRENT: 424/139.1; 424/178.1, 530/387.9, 530/388.22, 530/389.1, 530/391.3, 530/391.7

ABSTRACT:

The present invention relates to a novel member of the tumor necrosis factor family of receptors. In particular, isolated nucleic acid molecules are provided encoding the human TR9 receptor. TR9 polypeptides are also provided as are antibodies vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of TR9 receptor activity.

10 Claims, 11 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 11

☐ 27. Document ID: US 6294170 B1

L9: Entry 27 of 27 File: USPT Sep 25, 2001

US-PAT-NO: 6294170
DOCUMENT-IDENTIFIER: US 6294170 B1
**** See image for Certificate of Correction ****

TITLE: Composition and method for treating inflammatory diseases

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boone; Thomas C.	Newbury Park	CA		
Hershenson; Susan	Newbury Park	CA		
Bevilacqua; Michael P.	Boulder	CO		
Collins; David S.	Fishers	IN		

US-CL-CURRENT: 424/134.1; 514/12, 530/324

ABSTRACT:

A protein which exhibits a therapeutic effect on inflammation and is useful for treating IL-1-mediated inflammatory diseases, particularly diseases of the joint.

15 Claims, 14 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 14

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Osteoprotegerin ligand is a cytokine that regulates osteoclast differentiation and activation.

Lacey DL, Timms E, Tan HL, Kelley MJ, Dunstan CR, Burgess T, Elliott Colombero A, Elliott G, Scully S, Hsu H, Sullivan J, Hawkins N, Davy E, Capparelli C, Eli A, Qian YX, Kaufman S, Sarosi I, Shalhoub V, Senaldi Guo J, Delaney J, Boyle WJ.

Department of Pathology, Amgen, Inc., Thousand Oaks, California 91320-178 USA.

The ligand for osteoprotegerin has been identified, and it is a TNF-related cyto that replaces the requirement for stromal cells, vitamin D3, and glucocorticoid the coculture model of in vitro osteoclastogenesis. OPG ligand (OPGL) binds unique hematopoeitic progenitor cell that is committed to the osteoclast lineag and stimulates the rapid induction of genes that typify osteoclast development. OPGL directly activates isolated mature osteoclasts in vitro, and short-term administration into normal adult mice results in osteoclast activation associate with systemic hypercalcemia. These data suggest that OPGL is an osteoclast differentiation and activation factor. The effects of OPGL are blocked in vitro in vivo by OPG, suggesting that OPGL and OPG are key extracellular regulato of osteoclast development.

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CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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=> s osteoprotegerin binding protein
  15 FILES SEARCHED...
  25 FILES SEARCHED...
  43 FILES SEARCHED...
  63 FILES SEARCHED...
L1          143 OSTEOPROTEGERIN BINDING PROTEIN

=> S L1 AND antibody
  25 FILES SEARCHED...
  52 FILES SEARCHED...
L2           32 L1 AND ANTIBODY

=> DUP REM L2
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,
DRUGMONOG2, IMSRESEARCH, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, KOSMET,
MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, PROUSDDR, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L2
L3           21 DUP REM L2 (11 DUPLICATES REMOVED)

=> DUP REM L1
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,
```

DRUGMONOG2, IMSRESEARCH, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, KOSMET,
MEDICONF, NUTRACEUT, PCTGEN, PHAR, PHARMAML, PROUSDDR, RDISCLOSURE, SYNTHLINE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L1
L4 126 DUP REM L1 (17 DUPLICATES REMOVED)

=> D L4 1-126

L4 ANSWER 1 OF 126 USPATFULL on STN
AN 2004:203879 USPATFULL
TI Rank-ligand-induced sodium/proton antiporter polypeptides
IN Bird, Timothy A., Bainbridge, WA, UNITED STATES
Tometsko, Mark E., Seattle, WA, UNITED STATES
Dougall, William C., Seattle, WA, UNITED STATES
Mosley, Bruce A., Seattle, WA, UNITED STATES
PI US 2004157771 A1 20040812
AI US 2003-372613 A1 20030221 (10)
PRAI US 2002-361891P 20020228 (60)
DT Utility
FS APPLICATION
LN.CNT 5274
INCL INCLM: 514/012.000
INCLS: 530/350.000; 435/069.100; 435/320.100; 435/325.000; 536/023.500
NCL NCLM: 514/012.000
NCLS: 530/350.000; 435/069.100; 435/320.100; 435/325.000; 536/023.500
IC [7]
ICM: A61K038-17
ICS: C07K014-705; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 2 OF 126 CIN COPYRIGHT 2004 ACS on STN
AN 33(4):1819S CIN
TI Patent applications
SO Biotechnol. News, 8 Jan 2004 (20040108), 24(1), p. 11. ISSN: 0273-3226;
CODEN: BINWEY.
LA English

L4 ANSWER 3 OF 126 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN 2003:435069 CAPLUS
DN 139:35078
TI Selective binding agents of **osteoprotegerin binding protein** (OPGbp), such as antagonist antibodies, for use in the treatment of bone disorders
IN Deshpande, Rajendra V.; Hitz, Anna; Boyle, William James; Sullivan, John K.
PA Amgen Inc., USA
SO U.S. Pat. Appl. Publ., 123 pp., Cont.-in-part of U.S. Ser. No. 511,139, abandoned.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003103978	A1	20030605	US 2001-791153	20010222
	WO 2001062932	A1	20010830	WO 2001-US5973	20010223

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1257648 A1 20021120 EP 2001-911158 20010223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2003523772 T2 20030812 JP 2001-562706 20010223
PRAI US 2000-511139 B2 20000223
US 2001-791153 A 20010222
WO 2001-US5973 W 20010223

L4 ANSWER 4 OF 126 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 2
AN 10360068 IFIPAT;IFIUDB;IFICDB
TI ANTIBODIES SPECIFIC FOR **OSTEOPROTEGERIN BINDING PROTEINS** AND METHOD OF USE; NUCLEOTIDE SEQUENCES CODING POLYPEPTIDE FOR USE IN TREATMENT OF BONE DISORDERS
IN BOYLE WILLIAM J
PA Unassigned Or Assigned To Individual (68000)
PI US 2003104485 A1 20030605
AI US 1998-79569 19980514
RLI US 1997-842842 19970416 DIVISION 5843678
FI US 2003104485 20030605
US 5843678
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 33
GI 3 Figure(s).
FIG. 1. Structure and sequence of the 32D-F3 insert encoding OPG binding protein. Predicted transmembrane domain and sites for asparagine-linked carbohydrate chains are underlined.
FIG. 2. OPG binding protein expression in COS-7 cells transfected with pcDNA/32I)-F3. Cells were lipofected with pcDNA/32D-F3 DNA, the assayed for binding to either goat antihuman IgG1 alkaline phosphatase conjugate (secondary alone), human OPG(22-201)-Fc plus secondary (OPG-Fc), or a chimeric ATAR extracellular domain-Fc fusion protein (sATAR-Fc). ATAR is a new member of the TNFR superfamily, and the sATAR-Fc fusion protein serves as a control for both human IgG1 Fc domain binding, and generic TNFR releated protein, binding to 32D cell surface molecules.
FIG. 3. Expression of OPG binding protein in human tissues. Northern blot analysis of human tissue mRNA (Clontech) using a radiolabeled 32D-F3 derived hybridization probe. Relative molecular mass is indicated at the left in kilobase pairs (kb). Arrowhead on right side indicates the migration of an approximately 2.5 kb transcript detected in lymph node mRNA. A very faint band of the same mass is also detected in fetal liver.

L4 ANSWER 5 OF 126 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 3
AN 10356071 IFIPAT;IFIUDB;IFICDB
TI **OSTEOPROTEGERIN BINDING PROTEINS**; FOR THERAPY OF BONE DISEASES, SUCH AS OSTEOPOROSIS, BONE LOSS FROM ARTHRITIS, PAGET'S DISEASE, AND HYPERCALCEMIA
IN BOYLE WILLIAM J
PA Unassigned Or Assigned To Individual (68000)
PI US 2003100488 A1 20030529
AI US 1998-211297 19981214
RLI US 1997-880855 19970623 CONTINUATION
US 1997-842842 19970416 CONTINUATION-IN-PART 5843678
FI US 2003100488 20030529
US 5843678
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 36
GI 9 Figure(s).
FIG. 1. Structure and sequence of the 32D-F3 insert encoding OPG binding protein. Predicted transmembrane domain and sites for asparagine-linked

carbohydrate chains are underlined.
FIG. 2. OPG binding protein expression in COS-7 cells transfected with pcDNA/32D-F3. Cells were lipofected with pcDNA/ 32D-F3 DNA, the assayed for binding to either goat anti-human IgG1 alkaline phosphatase conjugate (secondary alone), human OPG(22-201)-Fc plus secondary (OPG-Fc), or a chimeric ATAR extracellular domain-Fc fusion protein (sATAR-Fc). ATAR is a new member of the TNFR superfamily, and the sATAR-Fc fusion protein serves as a control for both human IgG1 Fc domain binding, and generic TNFR releated protein, binding to 32D cell surface molecules.
FIG. 3. Expression of OPG binding protein in human tissues. Northern blot analysis of human tissue mRNA (Clontech) using a radiolabeled 32D-F3 derived hybridization probe. Relative molecular mass is indicated at the left in kilobase pairs (kb). Arrowhead on right side indicates the migration of an approximately 2.5 kb transcript detected in lymph node mRNA. A very faint band of the same mass is also detected in fetal liver.
FIG. 4. Structure and sequence of the pcDNA/hu OPGbp 1.1 insert encoding the human OPG binding protein. The predicted transmembrane domain and site for asparagine-linked charbohydrate chains are underlined.
FIG. 5. Stimulation of osteoclast development in vitro from bone marrow macrophage and ST2 cell cocultures treated with recombinant murine OPG binding protein (158-316). Cultures were treated with varying concentrations of murine OPG binding protein ranging from 1.6 to 500 ng/ml. After 8-10 days, cultures were lysed, and TRAP activity was measured by solution assay. In addition, some cultures were simultaneously treated with 1, 10, 100, 500, and 1000 ng/ml of recombinant murine OPG (22-401)-Fc protein. Murine OPG binding protein induces a dosedependent stimulation in osteoclast formation, whereas OPG (22401)-Fc inhibits osteoclast formation.
FIG. 6. Stimulation of osteoclast development from bone marrow precursors in vitro in the presence of M-CSF and murine OPG binding protein (158-316). Mouse bone marrow was harvested, and cultured in the presence 250, 500, 1000, and 2000 U/ml of M-CSF. Varying concentrations of OPG binding protein (158-316), ranging from 1.6 to 500 ng/ml, were added to these same cultures. Osteoclast development was measured by TRAP solution assay.
FIG. 7. Osteoclasts derived from bone marrow cells in the presence of both M-CSF and OPG binding protein (158-316) resorb bone in vitro. Bone marrow cells treated with either M-CSF, OPG binding protein, or with both factors combined, were plated onto bone slices in culture wells, and were allowed to develop into mature osteoclasts. The resulting cultures were then stained with Toluidine Blue (left column), or histochemically to detect TRAP enzyme activity (right column). In cultures receiving both factors, mature osteoclasts were formed that were capable of eroding bone as judged by the presence of blue stained pits on the bone surface. This correlated with the presence of multiple large, multinucleated, TRAP positive cells.
FIG. 8. Graph showing the whole blood ionized calcium (iCa) levels from mice injected with OPG binding protein, 51 hours after the first injection, and in mice also receiving concurrent OPG administration. OPG binding protein significantly and dose dependently increased iCa levels. OPG (1 mg/kg/day) completely blocked the increase in iCa at a dose of OPG binding protein of 5 ug/day, and partially blocked the increase at a dose of OPG binding protein of 25 ug/day. (*), different to vehicle treated control (p less-than 0.05). (#), OPG treated iCa level significantly different to level in mice receiving that dose of OPG binding protein alone (p less-than 0. 05).
FIG. 9. Radiographs of the left femur and tibia in mice treated with 0, 5, 25 or 100 ug/day of OPG binding protein for 3.5 days. There is a dose dependent decrease in bone density evident most clearly in the proximal tibial metaphysis of these mice, and that is profound at a dose of 100 ug/day.

L4 ANSWER 6 OF 126 USPATFULL on STN
AN 2003:277129 USPATFULL

TI Peptides and related molecules that bind to TALL-1
IN Min, Hosung, Newbury Park, CA, UNITED STATES
Hsu, Hailing, Moorpark, CA, UNITED STATES
Xiong, Fei, Thousand Oaks, CA, UNITED STATES
PA Amgen Inc. (U.S. corporation)
PI US 2003195156 A1 20031016
AI US 2002-145206 A1 20020513 (10)
PRAI US 2001-290196P 20010511 (60)
DT Utility
FS APPLICATION
LN.CNT 2728
INCL INCLM: 514/014.000
INCLS: 514/015.000
NCL NCLM: 514/014.000
NCLS: 514/015.000
IC [7]
ICM: A61K038-10
ICS: A61K038-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 7 OF 126 USPATFULL on STN
AN 2003:146245 USPATFULL
TI TALL-1 receptor molecules and uses thereof
IN Hsu, Hailing, Moorpark, CA, UNITED STATES
PA Amgen Inc. A Corporation of the State of Delaware (U.S. corporation)
PI US 2003099990 A1 20030529
AI US 2002-251947 A1 20020920 (10)
PRAI US 2001-324238P 20010921 (60)
DT Utility
FS APPLICATION
LN.CNT 4507
INCL INCLM: 435/006.000
INCLS: 435/007.200; 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/006.000
NCLS: 435/007.200; 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; C07H021-04; C12P021-02; C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 8 OF 126 USPATFULL on STN
AN 2003:57548 USPATFULL
TI Composition and methods for the production of biological tissues and tissue constructs
IN Mizuno, Shuichi, Brookline, MA, UNITED STATES
Tokuno, Toshimasa, Tokyo, JAPAN
Berlowitz Tarrant, Laurence J., Easthampton, MA, UNITED STATES
PA Histogenics Corporation, Easthampton, MA (U.S. corporation)
PI US 2003040113 A1 20030227
AI US 2002-104677 A1 20020322 (10)
PRAI US 2001-278534P 20010323 (60)
US 2002-352085P 20020124 (60)
DT Utility
FS APPLICATION
LN.CNT 1569
INCL INCLM: 435/395.000
NCL NCLM: 435/395.000
IC [7]
ICM: C12N005-02
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 9 OF 126 USPATFULL on STN
AN 2003:29843 USPATFULL
TI Use of rank antagonists to treat cancer
IN Dougall, William C., Seattle, WA, UNITED STATES
PI US 2003021785 A1 20030130
AI US 2002-166232 A1 20020605 (10)
PRAI US 2001-296670P 20010606 (60)
DT Utility
FS APPLICATION
LN.CNT 1870
INCL INCLM: 424/146.100
 INCLS: 514/012.000; 514/044.000
NCL NCLM: 424/146.100
 NCLS: 514/012.000; 514/044.000
IC [7]
 ICM: A61K048-00
 ICS: A61K038-17; A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 10 OF 126 USPATFULL on STN
AN 2003:23315 USPATFULL
TI Therapeutic use of rank antagonists
IN Dougall, William C., Seattle, WA, UNITED STATES
 Anderson, Dirk M., Seattle, WA, UNITED STATES
PI US 2003017151 A1 20030123
AI US 2002-151071 A1 20020517 (10)
PRAI US 2001-291919P 20010517 (60)
DT Utility
FS APPLICATION
LN.CNT 2176
INCL INCLM: 424/143.100
 INCLS: 514/044.000
NCL NCLM: 424/143.100
 NCLS: 514/044.000
IC [7]
 ICM: A61K048-00
 ICS: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 126 USPATFULL on STN
AN 2003:17899 USPATFULL
TI Stimulation of osteogenesis using rank ligand fusion proteins
IN Lam, Jonathan, West Memphis, AR, UNITED STATES
 Ross, F. Patrick, Olivette, MO, UNITED STATES
 Teitelbaum, Steven L., University City, MO, UNITED STATES
PA Barnes-Jewish Hospital (2)
PI US 2003013651 A1 20030116
AI US 2002-105057 A1 20020322 (10)
PRAI US 2001-277855P 20010322 (60)
 US 2001-311163P 20010809 (60)
 US 2001-329231P 20011012 (60)
 US 2001-328876P 20011012 (60)
 US 2001-329393P 20011015 (60)
DT Utility
FS APPLICATION
LN.CNT 1942
INCL INCLM: 514/012.000
NCL NCLM: 514/012.000
IC [7]
 ICM: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 126 USPATFULL on STN DUPLICATE 4
AN 2002:156701 USPATFULL

TI Methods and compositions of matter concerning APRIL/G70, BCMA, BLYS/AGP-3 and TACI
IN Theill, Lars Eyde, Thousand Oaks, CA, UNITED STATES
Yu, Gang, Thousand Oaks, CA, UNITED STATES
PI US 2002081296 A1 20020627
US 6774106 B2 20040810
AI US 2001-854864 A1 20010514 (9)
PRAI US 2000-204039P 20000512 (60)
US 2000-214591P 20000627 (60)
DT Utility
FS APPLICATION
LN.CNT 2383
INCL INCLM: 424/144.100
INCLS: 424/155.100
NCL NCLM: 514/012.000
NCLS: 424/185.100; 424/192.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 13 OF 126 USPATFULL on STN
AN 2002:287553 USPATFULL
TI Receptor from TNF family
IN Boyle, William J., Moorpark, CA, UNITED STATES
Hsu, Hailing, Moorpark, CA, UNITED STATES
PI US 2002160416 A1 20021031
AI US 2001-779050 A1 20010212 (9)
PRAI US 2000-181800P 20000211 (60)
DT Utility
FS APPLICATION
LN.CNT 2856
INCL INCLM: 435/007.100
INCLS: 530/389.100; 530/395.000; 536/053.000
NCL NCLM: 435/007.100
NCLS: 530/389.100; 530/395.000; 536/053.000
IC [7]
ICM: G01N033-53
ICS: C07K016-46; C08B037-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 14 OF 126 USPATFULL on STN
AN 2002:272856 USPATFULL
TI TNF receptor-like molecules and uses thereof
IN Theill, Lars Eyde, Thousand Oaks, CA, UNITED STATES
Yeh, Richard, Ithaca, NY, UNITED STATES
Silbiger, Scott Michael, Woodland Hills, CA, UNITED STATES
Yu, Gang, Thousand Oaks, CA, UNITED STATES
Senaldi, Giorgio, Thousand Oaks, CA, UNITED STATES
PI US 2002150977 A1 20021017
AI US 2001-948018 A1 20010905 (9)
PRAI US 2000-230191P 20000905 (60)
DT Utility
FS APPLICATION
LN.CNT 5781
INCL INCLM: 435/069.100
INCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.500; 435/194.000
NCL NCLM: 435/069.100
NCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.500; 435/194.000
IC [7]
ICM: C12P021-02
ICS: C12N005-06; C07H021-04; C12N009-12
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 15 OF 126 USPATFULL on STN

AN 2002:164694 USPATFULL
TI Screening assays for agonists and antagonists of receptor activator of NF-kappa B
IN Dougall, William C., Seattle, WA, UNITED STATES
PI US 2002086312 A1 20020704
AI US 2001-957944 A1 20010920 (9)
PRAI US 2000-235157P 20000922 (60)
DT Utility
FS APPLICATION
LN.CNT 3029
INCL INCLM: 435/006.000
INCLS: 435/007.210
NCL NCLM: 435/006.000
NCLS: 435/007.210
IC [7]
ICM: C12Q001-68
ICS: G01N033-567
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 16 OF 126 USPATFULL on STN
AN 2002:164405 USPATFULL
TI Methods and compositions of matter concerning APRIL/G70, BCMA, BLYS/AGP-3, and TACI
IN Theill, Lars Eyde, Thousand Oaks, CA, UNITED STATES
Yu, Gang, Thousand Oaks, CA, UNITED STATES
PI US 2002086018 A1 20020704
AI US 2001-855158 A1 20010514 (9)
PRAI US 2000-204039P 20000512 (60)
US 2000-214591P 20000627 (60)
DT Utility
FS APPLICATION
LN.CNT 1973
INCL INCLM: 424/146.100
INCLS: 424/153.100
NCL NCLM: 424/146.100
NCLS: 424/153.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 17 OF 126 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN DUPLICATE
AN 2002:34223904 BIOTECHNO
TI Antagonistic selective binding agents of **osteoprotegerin binding protein**
SO Expert Opinion on Therapeutic Patents, (2002), 12/3 (469-470), 5 reference(s)
CODEN: EOTPEG ISSN: 1354-3776
DT Journal; Article
CY United Kingdom
LA English
SL English

L4 ANSWER 18 OF 126 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN DUPLICATE 6
AN 2002:225630 BIOSIS
DN PREV200200225630
TI Methods of use for osetoprotegerin binding protein receptors.
AU Boyle, William J. [Inventor]
CS ASSIGNEE: Amgen Inc.
PI US 6316408 November 13, 2001
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 13, 2001) Vol. 1252, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file.

CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 3 Apr 2002
Last Updated on STN: 3 Apr 2002

L4 ANSWER 19 OF 126 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 7
AN 2002-00826 BIOTECHDS
TI Antibodies that bind antagonistically to osteoprotein binding, useful for treating osteporosis, metastasis of cancer to bone, rheumatoid arthritis, hypercalcemia of malignancy and steroid osteoporosis;
monoclonal antibody and humanized antibody, vector expression in CHO cell
AU Deshpande R V; Hitz A; Boyle W J; Sullivan J K
PA Amgen
LO Thounsand Oaks, CA, USA.
PI WO 2001062932 30 Aug 2001
AI WO 2001-US5973 23 Feb 2001
PRAI US 2001-791153 22 Mar 2001; US 2000-511139 23 Feb 2000
DT Patent
LA English
OS WPI: 2001-557706 [62]

L4 ANSWER 20 OF 126 USPATFULL on STN
AN 2001:14213 USPATFULL
TI Method for diagnosing and treating chronic pelvic pain syndrome
IN Alexander, Richard B., Ellicott City, MD, United States
Ponniah, Sathibalan, Ellicott City, MD, United States
PA University of Maryland, Baltimore, Baltimore, MD, United States (U.S. corporation)
PI US 6180355 B1 20010130
AI US 1999-306927 19990507 (9)
PRAI US 1998-84668P 19980507 (60)
DT Utility
FS Granted
LN.CNT 3501
INCL INCLM: 435/007.100
INCLS: 435/007.800
NCL NCLM: 435/007.100
NCLS: 435/007.800
IC [7]
ICM: G01N033-50
ICS: G01N033-53
EXF 435/7.1; 435/7.8; 435/7.92; 435/7.94; 424/1.41; 424/145.1; 424/158.1; 436/501; 436/86; 436/87
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 21 OF 126 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN DUPLICATE 8
AN 1999:71302 BIOSIS
DN PREV199900071302
TI **Osteoprotegerin binding proteins.**
AU Boyle, W. J. [Inventor]
CS Moorpark, Calif., USA
ASSIGNEE: AMGEN INC.
PI US 5843678 Dec. 1, 1998
SO Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 1, 1998) Vol. 1217, No. 1, pp. 472. print.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 1 Mar 1999
Last Updated on STN: 1 Mar 1999

L4 ANSWER 22 OF 126 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:712352 CAPLUS
DN 129:328897
TI A protein binding osteoprotegerin playing a role in osteoclast maturation for use in the treatment of bone loss
IN Boyle, William J.
PA Amgen Inc., USA
SO PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9846751	A1	19981022	WO 1998-US7584	19980415
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5843678	A	19981201	US 1997-842842	19970416
	US 6316408	B1	20011113	US 1998-52521	19980330
	AU 9871205	A1	19981111	AU 1998-71205	19980415
	AU 743257	B2	20020124		
	EP 975754	A1	20000202	EP 1998-918244	19980415
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9808545	A	20000523	BR 1998-8545	19980415
	EE 9900611	A	20000815	EE 1999-611	19980415
	JP 2001526532	T2	20011218	JP 1998-544257	19980415
	NZ 500253	A	20020927	NZ 1998-500253	19980415
	ZA 9803189	A	19981016	ZA 1998-3189	19980416
	US 2003104485	A1	20030605	US 1998-79569	19980514
	MX 9909387	A	20000630	MX 1999-9387	19991013
	NO 9905044	A	19991215	NO 1999-5044	19991015
PRAI	US 1997-842842	A	19970416		
	US 1997-880855	A2	19970623		
	US 1998-52521	A	19980330		
	WO 1998-US7584	W	19980415		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83201 peptide DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine osteoclast differentiation and activation receptor peptide.

L4 ANSWER 24 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN

AN AAW83200 Protein DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
CR N-PSDB: AAV70304
DESC Murine osteoclast differentiation and activation receptor.

L4 ANSWER 25 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83199 peptide DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** EF loop-Cys peptide.

L4 ANSWER 26 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83198 peptide DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** EF loop peptide.

L4 ANSWER 27 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83197 peptide DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416

US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** BB' loop-Cys peptide.

L4 ANSWER 28 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83196 peptide DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** BB' loop peptide.

L4 ANSWER 29 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83195 Protein DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
CR N-PSDB: AAV70285
DESC Human **osteoprotegerin binding protein** from the pcDNA/huOPGbp1.1insert.

L4 ANSWER 30 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAW83194 Protein DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
CR N-PSDB: AAV70284
DESC Human **osteoprotegerin binding protein** from the 32D-F3 ins.

L4 ANSWER 31 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN

AN AAV70306 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine osteoclast differentiation and activation receptor PCR primer #2.

L4 ANSWER 32 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70305 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine osteoclast differentiation and activation receptor PCR primer #1.

L4 ANSWER 33 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70304 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
CR P-PSDB: AAW83200
DESC Murine osteoclast differentiation and activation receptor encoding DNA.

L4 ANSWER 34 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70303 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent

LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1616-42.

L4 ANSWER 35 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70302 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1616-41.

L4 ANSWER 36 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70301 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1616-44.

L4 ANSWER 37 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70300 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1602-59.

L4 ANSWER 38 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70299 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis

IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1602-61.

L4 ANSWER 39 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70298 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1581-74.

L4 ANSWER 40 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70297 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1581-75.

L4 ANSWER 41 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70296 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]

DESC Murine **osteoprotegerin binding protein** PCR primer 1581-73.

L4 ANSWER 42 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70295 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1619-86.

L4 ANSWER 43 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70294 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1600-98.

L4 ANSWER 44 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70293 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1591-92.

L4 ANSWER 45 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70292 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.

PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1591-91.

L4 ANSWER 46 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70291 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1591-94.

L4 ANSWER 47 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70290 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1591-93.

L4 ANSWER 48 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70289 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1591-95.

L4 ANSWER 49 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70288 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1591-90.

L4 ANSWER 50 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70287 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1581-76.

L4 ANSWER 51 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70286 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
US 1997-842842 19970416
US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
DESC Murine **osteoprotegerin binding protein** PCR primer 1581-72.

L4 ANSWER 52 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70285 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g. treating bone diseases by modulating osteoclast differentiation and for diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415

PRAI US 1998-52521 19980330
 US 1997-842842 19970416
 US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
CR P-PSDB: AAW83195
DESC Human **osteoprotegerin binding protein** from
 the pcDNA/huOPGbp1.1insert.

L4 ANSWER 53 OF 126 DGENE COPYRIGHT 2004 The Thomson Corp on STN
AN AAV70284 DNA DGENE
TI Nucleic acid encoding osteoprotegrin binding protein - useful for, e.g.
 treating bone diseases by modulating osteoclast differentiation and for
 diagnosis
IN Boyle W J
PA (AMGE-N) AMGEN INC.
PI WO 9846751 A1 19981022 47p
AI WO 1998-US7584 19980415
PRAI US 1998-52521 19980330
 US 1997-842842 19970416
 US 1997-880855 19970623
DT Patent
LA English
OS 1998-594578 [50]
CR P-PSDB: AAW83194
DESC Human **osteoprotegerin binding protein**
 encoding DNA from the 32D-F3 ins.

L4 ANSWER 54 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232668 GenBank (R)
GenBank ACC. NO. (GBN): AX232668
GenBank VERSION (VER): AX232668.1 GI:15592662
CAS REGISTRY NO. (RN): 357143-84-1
SEQUENCE LENGTH (SQL): 23
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 154 from Patent WO0162932.
SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
NUCLEIC ACID COUNT (NA): 4 a 9 c 5 g 5 t
REFERENCE: 1 (bases 1 to 23)
 AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
 TITLE (TI): Antagonistic selective binding agents of
 osteoprotegerin binding
 protein
 JOURNAL (SO): Patent: WO 0162932-A 154 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..23	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
 1 ccgggcgcgc cttattaaca ctc

L4 ANSWER 55 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232667 GenBank (R)
GenBank ACC. NO. (GBN): AX232667

GenBank VERSION (VER): AX232667.1 GI:15592661
CAS REGISTRY NO. (RN): 357143-83-0
SEQUENCE LENGTH (SQL): 51
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 153 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 8 a 16 c 20 g 7 t
REFERENCE: 1 (bases 1 to 51)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 153 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..51	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 ccggtcaaca cactacgtac gtgtgcggcg gcgcgggcgt tcggccaagg g

L4 ANSWER 56 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232666 GenBank (R)
GenBank ACC. NO. (GBN): AX232666
GenBank VERSION (VER): AX232666.1 GI:15592660
CAS REGISTRY NO. (RN): 382255-02-9
SEQUENCE LENGTH (SQL): 48
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 152 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 6 a 13 c 16 g 13 t
REFERENCE: 1 (bases 1 to 48)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 152 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..48	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 ccgctcagct cctggggctc ctgctattgt ggttgagagg tgccagat

L4 ANSWER 57 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232665 GenBank (R)
GenBank ACC. NO. (GBN): AX232665
GenBank VERSION (VER): AX232665.1 GI:15592659
CAS REGISTRY NO. (RN): 357143-82-9

SEQUENCE LENGTH (SQL): 40
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 151 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 7 a 7 c 17 g 9 t
REFERENCE: 1 (bases 1 to 40)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 151 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..40	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtggttgaga ggtgccagat gtcaggtcca gctggtgcag

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LOCUS (LOC): AX232664 GenBank (R)
GenBank ACC. NO. (GBN): AX232664
GenBank VERSION (VER): AX232664.1 GI:15592658
CAS REGISTRY NO. (RN): 357143-81-8
SEQUENCE LENGTH (SQL): 53
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 150 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 8 c 17 g 16 t
REFERENCE: 1 (bases 1 to 53)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 150 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..53	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga tgccgcagct atggttcggg gaattattat agc

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LOCUS (LOC): AX232663 GenBank (R)
GenBank ACC. NO. (GBN): AX232663
GenBank VERSION (VER): AX232663.1 GI:15592657
CAS REGISTRY NO. (RN): 357143-80-7
SEQUENCE LENGTH (SQL): 53
MOLECULE TYPE (CI): DNA; linear

DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 149 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 8 c 16 g 17 t
REFERENCE: 1 (bases 1 to 53)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 149 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..53	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga ttccgcagct atggttcggg gaattattat agc

L4 ANSWER 60 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232662 GenBank (R)
GenBank ACC. NO. (GBN): AX232662
GenBank VERSION (VER): AX232662.1 GI:15592656
CAS REGISTRY NO. (RN): 357143-79-4
SEQUENCE LENGTH (SQL): 53
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 148 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 8 c 16 g 17 t
REFERENCE: 1 (bases 1 to 53)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 148 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..53	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga tgcctcagct atggttcggg gaattattat agc

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LOCUS (LOC): AX232661 GenBank (R)
GenBank ACC. NO. (GBN): AX232661
GenBank VERSION (VER): AX232661.1 GI:15592655
CAS REGISTRY NO. (RN): 357143-78-3
SEQUENCE LENGTH (SQL): 48
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001

DEFINITION (DEF): Sequence 147 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 6 c 15 g 15 t
REFERENCE: 1 (bases 1 to 48)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 147 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..48	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga tgccgcaaat atggttcggg gaattatt

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LOCUS (LOC): AX232660 GenBank (R)
GenBank ACC. NO. (GBN): AX232660
GenBank VERSION (VER): AX232660.1 GI:15592654
CAS REGISTRY NO. (RN): 382255-01-8
SEQUENCE LENGTH (SQL): 30
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 146 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 7 a 5 c 14 g 4 t
REFERENCE: 1 (bases 1 to 30)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 146 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..30	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtggaggcac tagagacggt gaccagggtg

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LOCUS (LOC): AX232659 GenBank (R)
GenBank ACC. NO. (GBN): AX232659
GenBank VERSION (VER): AX232659.1 GI:15592653
CAS REGISTRY NO. (RN): 357143-77-2
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 145 from Patent WO0162932.
SOURCE: synthetic construct.

ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 7 a 13 c 8 g 8 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 145 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cacagccgtg tcttcagatc tcagactgcg cagctc

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LOCUS (LOC): AX232658 GenBank (R)
GenBank ACC. NO. (GBN): AX232658
GenBank VERSION (VER): AX232658.1 GI:15592652
CAS REGISTRY NO. (RN): 357143-76-1
SEQUENCE LENGTH (SQL): 52
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 144 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 17 c 15 g 8 t
REFERENCE: 1 (bases 1 to 52)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 144 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..52	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cagcagaagc ttagaccacc atggacatga gggtccccgc tcagctcctg gg

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LOCUS (LOC): AX232657 GenBank (R)
GenBank ACC. NO. (GBN): AX232657
GenBank VERSION (VER): AX232657.1 GI:15592651
CAS REGISTRY NO. (RN): 382255-00-7
SEQUENCE LENGTH (SQL): 42
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 143 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence

NUCLEIC ACID COUNT (NA): 11 a 7 c 13 g 11 t
REFERENCE: 1 (bases 1 to 42)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 143 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..42	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 agtctgagat ctgaagacac ggctgtgtat tactgtgcga ga

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LOCUS (LOC): AX232656 GenBank (R)
GenBank ACC. NO. (GBN): AX232656
GenBank VERSION (VER): AX232656.1 GI:15592650
CAS REGISTRY NO. (RN): 357143-75-0
SEQUENCE LENGTH (SQL): 41
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 142 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 13 c 5 g 9 t
REFERENCE: 1 (bases 1 to 41)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 142 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..41	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatca cattgaggaa tctctcgcac a

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LOCUS (LOC): AX232655 GenBank (R)
GenBank ACC. NO. (GBN): AX232655
GenBank VERSION (VER): AX232655.1 GI:15592649
CAS REGISTRY NO. (RN): 357143-74-9
SEQUENCE LENGTH (SQL): 41
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 141 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 13 c 6 g 10 t
REFERENCE: 1 (bases 1 to 41)

AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 141 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..41	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatct cgttgaggaa tctctcgcac a

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LOCUS (LOC): AX232654 GenBank (R)
GenBank ACC. NO. (GBN): AX232654
GenBank VERSION (VER): AX232654.1 GI:15592648
CAS REGISTRY NO. (RN): 357143-73-8
SEQUENCE LENGTH (SQL): 43
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 140 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 13 c 8 g 9 t
REFERENCE: 1 (bases 1 to 43)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 140 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..43	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatgc gacgttgagg aatctctcgc aca

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LOCUS (LOC): AX232653 GenBank (R)
GenBank ACC. NO. (GBN): AX232653
GenBank VERSION (VER): AX232653.1 GI:15592647
CAS REGISTRY NO. (RN): 357143-72-7
SEQUENCE LENGTH (SQL): 43
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 139 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 12 c 7 g 10 t
REFERENCE: 1 (bases 1 to 43)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of

osteoprotegerin binding
protein
JOURNAL (SO): Patent: WO 0162932-A 139 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..43	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatga tacgttgagg aatctctcgc aca

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LOCUS (LOC): AX232652 GenBank (R)
GenBank ACC. NO. (GBN): AX232652
GenBank VERSION (VER): AX232652.1 GI:15592646
CAS REGISTRY NO. (RN): 357143-71-6
SEQUENCE LENGTH (SQL): 44
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 138 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 15 a 13 c 5 g 11 t
REFERENCE: 1 (bases 1 to 44)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of
osteoprotegerin binding
protein
JOURNAL (SO): Patent: WO 0162932-A 138 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..44	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat tcacatggaa tctctcgcac agta

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LOCUS (LOC): AX232651 GenBank (R)
GenBank ACC. NO. (GBN): AX232651
GenBank VERSION (VER): AX232651.1 GI:15592645
CAS REGISTRY NO. (RN): 357143-70-5
SEQUENCE LENGTH (SQL): 44
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 137 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 13 c 6 g 12 t
REFERENCE: 1 (bases 1 to 44)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of
osteoprotegerin binding
protein

JOURNAL (SO): Patent: WO 0162932-A 137 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..44	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat tctcgtggaa tctctcgcac agta

L4 ANSWER 72 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232650 GenBank (R)
GenBank ACC. NO. (GBN): AX232650
GenBank VERSION (VER): AX232650.1 GI:15592644
CAS REGISTRY NO. (RN): 357143-69-2
SEQUENCE LENGTH (SQL): 46
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 136 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 13 c 8 g 11 t
REFERENCE: 1 (bases 1 to 46)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 136 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..46	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat tgcgacgtgg aatctctcgc acagta

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LOCUS (LOC): AX232649 GenBank (R)
GenBank ACC. NO. (GBN): AX232649
GenBank VERSION (VER): AX232649.1 GI:15592643
CAS REGISTRY NO. (RN): 357143-68-1
SEQUENCE LENGTH (SQL): 46
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 135 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 15 a 12 c 7 g 12 t
REFERENCE: 1 (bases 1 to 46)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 135 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..46	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat tgatacgtgg aatctctcgc acagta

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LOCUS (LOC): AX232648 GenBank (R)
GenBank ACC. NO. (GBN): AX232648
GenBank VERSION (VER): AX232648.1 GI:15592642
CAS REGISTRY NO. (RN): 357143-67-0
SEQUENCE LENGTH (SQL): 44
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 134 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 15 a 13 c 4 g 12 t
REFERENCE: 1 (bases 1 to 44)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 134 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..44	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat ttgacacata tctctcgcac agta

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LOCUS (LOC): AX232647 GenBank (R)
GenBank ACC. NO. (GBN): AX232647
GenBank VERSION (VER): AX232647.1 GI:15592641
CAS REGISTRY NO. (RN): 357143-66-9
SEQUENCE LENGTH (SQL): 44
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 133 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 13 c 5 g 13 t
REFERENCE: 1 (bases 1 to 44)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 133 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier

Feature Key	Location	Qualifier
source	1..44	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat ttgactcgta tctctcgcac agta

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LOCUS (LOC): AX232646 GenBank (R)
GenBank ACC. NO. (GBN): AX232646
GenBank VERSION (VER): AX232646.1 GI:15592640
CAS REGISTRY NO. (RN): 357143-65-8
SEQUENCE LENGTH (SQL): 46
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 132 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 13 c 7 g 12 t
REFERENCE: 1 (bases 1 to 46)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 132 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..46	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat ttgagcgacg tatctctcgc acagta

L4 ANSWER 77 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232645 GenBank (R)
GenBank ACC. NO. (GBN): AX232645
GenBank VERSION (VER): AX232645.1 GI:15592639
CAS REGISTRY NO. (RN): 357143-64-7
SEQUENCE LENGTH (SQL): 46
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 131 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 15 a 12 c 6 g 13 t
REFERENCE: 1 (bases 1 to 46)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 131 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..46	/organism="synthetic construct"

/db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat ttgagatacg tatctctcgc acagta

L4 ANSWER 78 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232644 GenBank (R)
GenBank ACC. NO. (GBN): AX232644
GenBank VERSION (VER): AX232644.1 GI:15592638
CAS REGISTRY NO. (RN): 382254-99-1
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 130 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 8 c 5 g 9 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 130 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtagtcaaaa tagtacgcta taataattcc ccgaac

L4 ANSWER 79 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232643 GenBank (R)
GenBank ACC. NO. (GBN): AX232643
GenBank VERSION (VER): AX232643.1 GI:15592637
CAS REGISTRY NO. (RN): 382254-98-0
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 129 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 9 a 11 c 10 g 6 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 129 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
 1 cagggtgccc tggccccagt agtcaaaata gtacgc

L4 ANSWER 80 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232642 GenBank (R)
GenBank ACC. NO. (GBN): AX232642
GenBank VERSION (VER): AX232642.1 GI:15592636
CAS REGISTRY NO. (RN): 357143-63-6
SEQUENCE LENGTH (SQL): 32
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 128 from Patent WO0162932.
SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
NUCLEIC ACID COUNT (NA): 5 a 11 c 11 g 5 t
REFERENCE: 1 (bases 1 to 32)
 AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
 TITLE (TI): Antagonistic selective binding agents of
 osteoprotegerin binding
 protein
 JOURNAL (SO): Patent: WO 0162932-A 128 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):
 Feature Key Location Qualifier
==============+=====================+================================
source 1..32 /organism="synthetic construct"
 /db-xref="taxon:32630"

SEQUENCE (SEQ):
 1 cttgagacgg tgaccagggt gccctggccc ca

L4 ANSWER 81 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232641 GenBank (R)
GenBank ACC. NO. (GBN): AX232641
GenBank VERSION (VER): AX232641.1 GI:15592635
CAS REGISTRY NO. (RN): 382254-97-9
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 127 from Patent WO0162932.
SOURCE: synthetic construct.
 ORGANISM (ORGN): synthetic construct
 artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 5 c 10 g 12 t
REFERENCE: 1 (bases 1 to 39)
 AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
 TITLE (TI): Antagonistic selective binding agents of
 osteoprotegerin binding
 protein
 JOURNAL (SO): Patent: WO 0162932-A 127 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):
 Feature Key Location Qualifier
==============+=====================+================================
source 1..39 /organism="synthetic construct"
 /db-xref="taxon:32630"

SEQUENCE (SEQ):
 1 agagattcct caaatatggt tcggggaatt attatagcg

L4 ANSWER 82 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232640 GenBank (R)
GenBank ACC. NO. (GBN): AX232640
GenBank VERSION (VER): AX232640.1 GI:15592634
CAS REGISTRY NO. (RN): 382254-96-8
SEQUENCE LENGTH (SQL): 33
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 126 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 9 a 5 c 8 g 11 t
REFERENCE: 1 (bases 1 to 33)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 126 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..33	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga ttcctcaaat atg

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LOCUS (LOC): AX232639 GenBank (R)
GenBank ACC. NO. (GBN): AX232639
GenBank VERSION (VER): AX232639.1 GI:15592633
CAS REGISTRY NO. (RN): 357143-62-5
SEQUENCE LENGTH (SQL): 42
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 125 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 11 a 7 c 13 g 11 t
REFERENCE: 1 (bases 1 to 42)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 125 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..42	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 agtctgagat ctgaagacac ggctgtgtat tactgtgcga ga

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LOCUS (LOC): AX232638 GenBank (R)
GenBank ACC. NO. (GBN): AX232638
GenBank VERSION (VER): AX232638.1 GI:15592632
CAS REGISTRY NO. (RN): 357143-61-4
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 124 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 9 a 12 c 11 g 7 t
REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 124 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cagggtgccc tggccccagg cgtcaaaata gtacgctat

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LOCUS (LOC): AX232637 GenBank (R)
GenBank ACC. NO. (GBN): AX232637
GenBank VERSION (VER): AX232637.1 GI:15592631
CAS REGISTRY NO. (RN): 357143-60-3
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 123 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 10 a 11 c 11 g 7 t
REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 123 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cagggtgccc tggccccagt aggcaaaata gtacgctat

L4 ANSWER 86 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232636 GenBank (R)

GenBank ACC. NO. (GBN): AX232636
GenBank VERSION (VER): AX232636.1 GI:15592630
CAS REGISTRY NO. (RN): 357143-59-0
SEQUENCE LENGTH (SQL): 42
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 122 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 10 a 12 c 11 g 9 t
REFERENCE: 1 (bases 1 to 42)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 122 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..42	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cagggtgccc tggccccagt agtcagcata gtacgctata at

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LOCUS (LOC): AX232635 GenBank (R)
GenBank ACC. NO. (GBN): AX232635
GenBank VERSION (VER): AX232635.1 GI:15592629
CAS REGISTRY NO. (RN): 357143-58-9
SEQUENCE LENGTH (SQL): 45
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 121 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 13 c 10 g 10 t
REFERENCE: 1 (bases 1 to 45)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 121 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..45	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 ggtgccctgg ccccagtagt caaaagcgta cgctataata attcc

L4 ANSWER 88 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232634 GenBank (R)
GenBank ACC. NO. (GBN): AX232634
GenBank VERSION (VER): AX232634.1 GI:15592628

CAS REGISTRY NO. (RN): 357143-57-8
SEQUENCE LENGTH (SQL): 45
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 120 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 13 c 10 g 10 t
REFERENCE: 1 (bases 1 to 45)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 120 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..45	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 ggtgccctgg ccccagtagt caaaataggc cgctataata attcc

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LOCUS (LOC): AX232633 GenBank (R)
GenBank ACC. NO. (GBN): AX232633
GenBank VERSION (VER): AX232633.1 GI:15592627
CAS REGISTRY NO. (RN): 357143-56-7
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 119 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 9 c 6 g 8 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 119 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtagtcaaaa tagtacgctg caataattcc ccgaac

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LOCUS (LOC): AX232632 GenBank (R)
GenBank ACC. NO. (GBN): AX232632
GenBank VERSION (VER): AX232632.1 GI:15592626
CAS REGISTRY NO. (RN): 357143-55-6
SEQUENCE LENGTH (SQL): 39

MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 118 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 10 c 7 g 9 t
REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 118 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtagtcaaaa tagtacgcta tggcaattcc ccgaaccat

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LOCUS (LOC): AX232631 GenBank (R)
GenBank ACC. NO. (GBN): AX232631
GenBank VERSION (VER): AX232631.1 GI:15592625
CAS REGISTRY NO. (RN): 357143-54-5
SEQUENCE LENGTH (SQL): 42
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 117 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 10 c 7 g 11 t
REFERENCE: 1 (bases 1 to 42)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 117 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..42	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtagtcaaaa tagtacgcta taatggctcc ccgaaccata tt

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LOCUS (LOC): AX232630 GenBank (R)
GenBank ACC. NO. (GBN): AX232630
GenBank VERSION (VER): AX232630.1 GI:15592624
CAS REGISTRY NO. (RN): 357143-53-4
SEQUENCE LENGTH (SQL): 45
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent

DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 116 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 17 a 8 c 7 g 13 t
REFERENCE: 1 (bases 1 to 45)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 116 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..45	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtagtcaaaa tagtacgcta taataattgc ccgaaccata tttga

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LOCUS (LOC): AX232629 GenBank (R)
GenBank ACC. NO. (GBN): AX232629
GenBank VERSION (VER): AX232629.1 GI:15592623
CAS REGISTRY NO. (RN): 357143-52-3
SEQUENCE LENGTH (SQL): 38
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 115 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 11 a 6 c 8 g 13 t
REFERENCE: 1 (bases 1 to 38)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 115 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..38	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gattcctcaa atatggttgc cggaattatt atagcgta

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LOCUS (LOC): AX232628 GenBank (R)
GenBank ACC. NO. (GBN): AX232628
GenBank VERSION (VER): AX232628.1 GI:15592622
CAS REGISTRY NO. (RN): 357143-51-2
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 114 from Patent WO0162932.

SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 10 a 6 c 9 g 11 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 114 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct"
		/db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gattcctcaa atatggctcg gggaattatt atagcg

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LOCUS (LOC): AX232627 GenBank (R)
GenBank ACC. NO. (GBN): AX232627
GenBank VERSION (VER): AX232627.1 GI:15592621
CAS REGISTRY NO. (RN): 357143-50-1
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 113 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 10 a 10 c 7 g 9 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 113 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct"
		/db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaacggcat ttgaggaatc tctcgc

L4 ANSWER 96 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232626 GenBank (R)
GenBank ACC. NO. (GBN): AX232626
GenBank VERSION (VER): AX232626.1 GI:15592620
CAS REGISTRY NO. (RN): 357143-49-8
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 112 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct

artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 12 c 6 g 8 t
REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 112 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatag ctgaggaatc tctcgcaca

L4 ANSWER 97 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232625 GenBank (R)
GenBank ACC. NO. (GBN): AX232625
GenBank VERSION (VER): AX232625.1 GI:15592619
CAS REGISTRY NO. (RN): 357143-48-7
SEQUENCE LENGTH (SQL): 42
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 111 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 13 a 12 c 6 g 11 t
REFERENCE: 1 (bases 1 to 42)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 111 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..42	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 aataattccc cgaaccatat ttgcggaatc tctcgcacag ta

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LOCUS (LOC): AX232624 GenBank (R)
GenBank ACC. NO. (GBN): AX232624
GenBank VERSION (VER): AX232624.1 GI:15592618
CAS REGISTRY NO. (RN): 357143-47-6
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 110 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 9 a 6 c 12 g 12 t

REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 110 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga tgcctcaaat atggttcgg

L4 ANSWER 99 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232623 GenBank (R)
GenBank ACC. NO. (GBN): AX232623
GenBank VERSION (VER): AX232623.1 GI:15592617
CAS REGISTRY NO. (RN): 357143-46-5
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 109 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 8 a 7 c 11 g 13 t
REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 109 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagagc ttcctcaaat atggttcgg

L4 ANSWER 100 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232622 GenBank (R)
GenBank ACC. NO. (GBN): AX232622
GenBank VERSION (VER): AX232622.1 GI:15592616
CAS REGISTRY NO. (RN): 357143-45-4
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 108 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 9 a 11 c 10 g 6 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.

TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 108 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cagggtgccc tggccccagt agtcaaaata gtacgc

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LOCUS (LOC): AX232621 GenBank (R)
GenBank ACC. NO. (GBN): AX232621
GenBank VERSION (VER): AX232621.1 GI:15592615
CAS REGISTRY NO. (RN): 357143-44-3
SEQUENCE LENGTH (SQL): 33
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 107 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 9 a 5 c 8 g 11 t
REFERENCE: 1 (bases 1 to 33)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 107 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..33	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtgtattact gtgcgagaga ttcctcaaat atg

L4 ANSWER 102 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232620 GenBank (R)
GenBank ACC. NO. (GBN): AX232620
GenBank VERSION (VER): AX232620.1 GI:15592614
CAS REGISTRY NO. (RN): 357143-43-2
SEQUENCE LENGTH (SQL): 36
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 106 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 14 a 8 c 5 g 9 t
REFERENCE: 1 (bases 1 to 36)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding**

protein
JOURNAL (SO): Patent: WO 0162932-A 106 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..36	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 gtagtcaaaa tagtacgcta taataattcc ccgaac

L4 ANSWER 103 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232619 GenBank (R)
GenBank ACC. NO. (GBN): AX232619
GenBank VERSION (VER): AX232619.1 GI:15592613
CAS REGISTRY NO. (RN): 357143-42-1
SEQUENCE LENGTH (SQL): 39
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 105 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 12 a 5 c 10 g 12 t
REFERENCE: 1 (bases 1 to 39)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 105 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..39	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 agagattcct caaatatggt tcggggaatt attatagcg

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LOCUS (LOC): AX232617 GenBank (R)
GenBank ACC. NO. (GBN): AX232617
GenBank VERSION (VER): AX232617.1 GI:15592612
CAS REGISTRY NO. (RN): 357143-41-0
SEQUENCE LENGTH (SQL): 25
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 103 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 3 a 9 c 4 g 9 t
REFERENCE: 1 (bases 1 to 25)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 103 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..25	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):

1 cctctcctcg agttagtcta tgtcc

L4 ANSWER 105 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232616 GenBank (R)
GenBank ACC. NO. (GBN): AX232616
GenBank VERSION (VER): AX232616.1 GI:15592611
CAS REGISTRY NO. (RN): 357143-40-9
SEQUENCE LENGTH (SQL): 30
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 102 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 6 a 6 c 8 g 10 t
REFERENCE: 1 (bases 1 to 30)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 102 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..30	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):

1 ctggctactg aatatcttca gctgatggtg

L4 ANSWER 106 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232615 GenBank (R)
GenBank ACC. NO. (GBN): AX232615
GenBank VERSION (VER): AX232615.1 GI:15592610
CAS REGISTRY NO. (RN): 357143-39-6
SEQUENCE LENGTH (SQL): 30
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 101 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 6 a 7 c 8 g 9 t
REFERENCE: 1 (bases 1 to 30)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 101 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..30	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 agtagccagg tctcccgatg tttcatgatg

L4 ANSWER 107 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232614 GenBank (R)
GenBank ACC. NO. (GBN): AX232614
GenBank VERSION (VER): AX232614.1 GI:15592609
CAS REGISTRY NO. (RN): 357143-38-5
SEQUENCE LENGTH (SQL): 23
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 100 from Patent WO0162932.
SOURCE: synthetic construct.
ORGANISM (ORGN): synthetic construct
artificial sequence
NUCLEIC ACID COUNT (NA): 7 a 7 c 4 g 5 t
REFERENCE: 1 (bases 1 to 23)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 100 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..23	/organism="synthetic construct" /db-xref="taxon:32630"

SEQUENCE (SEQ):
1 cctctcatat ggactacaag gac

L4 ANSWER 108 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232589 GenBank (R)
GenBank ACC. NO. (GBN): AX232589
GenBank VERSION (VER): AX232589.1 GI:15592607
CAS REGISTRY NO. (RN): 391057-99-1
SEQUENCE LENGTH (SQL): 522
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 75 from Patent WO0162932.
SOURCE: house mouse.
ORGANISM (ORGN): Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NUCLEIC ACID COUNT (NA): 149 a 127 c 117 g 129 t
REFERENCE: 1 (bases 1 to 522)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 75 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..522	/organism="Mus musculus" /db-xref="taxon:10090"
CDS	4..516	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69727.1" /db-xref="GI:15592608" /translation="MDYKDDDDKKLKPEAQPFAH LTINAASIPSGSHKVTLSSWYHDR GWAKISNMTLSNGKLRVNQDGFYYLYANICFRHH ETSGDLATEYLQLMVYVVKTSIKI PSSHNLMKGGSTKNWSGNSEFHFYSINVGGFFKL RAGEEISIQVSNPSLLDPDQDATY FGAFKVQDID"

SEQUENCE (SEQ):

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     1 catatggact acaaggacga cgatgacaag aagcttaagc ctgaggccca gccatttgca
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   121 tggtaccacg atcgaggctg ggccaagatc tctaacatga cgttaagcaa cggaaaacta
   181 agggttaacc aagatggctt ctattacctg tacgctaaca tttgctttcg gcatcatgaa
   241 acatcgggag acctggctac tgaatatctt cagctgatgg tgtatgtcgt taaaaccagc
   301 atcaaaatcc caagttctca taacctgatg aaaggaggga gcacgaaaaa ctggtcgggc
   361 aattctgaat tccactttta ttccataaat gttgggggat ttttcaagct ccgagctggt
   421 gaagaaatta gcattcaggt gtccaaccct tccctgctgg atccggatca agatgcgacg
   481 tactttgggg ctttcaaagt tcaggacata gactaactcg ag
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LOCUS (LOC):	AX232572 GenBank (R)
GenBank ACC. NO. (GBN):	AX232572
GenBank VERSION (VER):	AX232572.1 GI:15592605
CAS REGISTRY NO. (RN):	391057-98-0
SEQUENCE LENGTH (SQL):	681
MOLECULE TYPE (CI):	DNA; linear
DIVISION CODE (CI):	Patent
DATE (DATE):	11 Sep 2001
DEFINITION (DEF):	Sequence 58 from Patent WO0162932.
SOURCE:	human.
ORGANISM (ORGN):	Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
NUCLEIC ACID COUNT (NA):	145 a 207 c 194 g 135 t
REFERENCE:	1 (bases 1 to 681)
AUTHOR (AU):	Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI):	Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO):	Patent: WO 0162932-A 58 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..681	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>681	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69726.1" /db-xref="GI:15592606" /translation="AEVQLLESGGGLVQPGRSLR LSCAASGFTFDDYAMHWVRQAPGK GLEWVSGISWNSGRIGYADSVKGRFTISRDNAKN SLYLQMNSLRPEDTAFYYCAKGGS

TSARYSSGWYYWGQGTLVTVSSASTKGPSVFPLA
PSSKSTSGGTAALGCLVKDYFPEP
VTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVT
VPSSSLGTQTYICNVNHKPSNTKV
DKKVEPKSC"

SEQUENCE (SEQ):

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     1 gccgaggtgc agctgctgga gtctggggga ggcttggtac aacctggcag gtccctgaga
    61 ctctcctgtg cagcctctgg attcaccttt gatgattatg ccatgcactg ggtccggcaa
   121 gctccaggga agggcctgga gtgggtctca ggtattagtt ggaatagtgg taggataggc
   181 tatgcggact ctgtgaaggg ccgattcacc atctccagag acaacgccaa gaactccctg
   241 tatctgcaaa tgaacagtct gagacctgag gacacggcct tctattactg tgcaaaaggg
   301 ggttctacaa gcgcgaggta tagcagtggc tggtactact ggggccaggg caccctggtc
   361 accgtctcaa gcgcctccac caagggccca tcggtcttcc ccctggcacc ctcctccaag
   421 agcacctctg ggggcacagc ggccctgggc tgcctggtca aggactactt ccccgaaccg
   481 gtgacggtgt cgtggaactc aggcgccctg accagcggcg tccacacctt cccggctgtc
   541 ctacagtcct caggactcta ctccctcagc agcgtagtga ccgtgccctc cagcagcttg
   601 ggcacccaga cctacatctg caacgtgaat cacaagccca gcaacaccaa ggtggacaag
   661 aaagttgagc ccaaatcttg t
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LOCUS (LOC): AX232570 GenBank (R)
GenBank ACC. NO. (GBN): AX232570
GenBank VERSION (VER): AX232570.1 GI:15592603
CAS REGISTRY NO. (RN): 391057-97-9
SEQUENCE LENGTH (SQL): 660
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 56 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 142 a 202 c 184 g 132 t
REFERENCE: 1 (bases 1 to 660)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 56 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..660	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>660	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69725.1" /db-xref="GI:15592604" /translation="AEVQLVQSGGGLVQPGGSLR LSCLVSGFTFNNYPMHWVRQAPGK GLEWVAVISYDGNNKYYADSVKGRFTISRDNSKN TLYLQMNSLRSEDTAVYYCARGGG GFDYWGQGTLVTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPVTVSWNS GALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG TQTYICNVNHKPSNTKVDKKVEPK SC"

SEQUENCE (SEQ):

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   181 tacgcagact ccgtgaaggg ccgattcacc atctccagag acaattccaa gaacacgctg
   241 tatttgcaaa tgaacagcct gagatctgag gacacggccg tgtattactg tgcgaggggg
   301 ggcggtggct ttgactactg gggccaggga accctggtca ccgtctcaag cgcctccacc
   361 aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg
   421 gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca
   481 ggcgccctga ccagcggcgt ccacaccttc ccggctgtcc tacagtcctc aggactctac
   541 tccctcagca gcgtagtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc
   601 aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt

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LOCUS (LOC):              AX232568     GenBank (R)
GenBank ACC. NO. (GBN):   AX232568
GenBank VERSION (VER):    AX232568.1  GI:15592601
CAS REGISTRY NO. (RN):    391057-96-8
SEQUENCE LENGTH (SQL):    690
MOLECULE TYPE (CI):       DNA; linear
DIVISION CODE (CI):       Patent
DATE (DATE):              11 Sep 2001
DEFINITION (DEF):         Sequence 54 from Patent WO0162932.
SOURCE:                   human.
 ORGANISM (ORGN):         Homo sapiens
                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                          Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
                          Hominidae; Homo
NUCLEIC ACID COUNT (NA): 156 a   204 c   193 g   137 t
REFERENCE:                1  (bases 1 to 690)
   AUTHOR (AU):           Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
   TITLE (TI):            Antagonistic selective binding agents of
                          osteoprotegerin binding
                          protein
   JOURNAL (SO):          Patent: WO 0162932-A 54 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):
  Feature Key       Location                Qualifier
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source           1..690                  /organism="Homo sapiens"
                                         /db-xref="taxon:9606"
CDS              <1..>690                /note="unnamed protein product"
                                         /codon-start=1
                                         /protein-id="CAC69724.1"
                                         /db-xref="GI:15592602"
                                         /translation="AEVQLVQSGAEVRKPGASVK
                                         VSCKASGYDFSNYAIHWVRQAPGQ
                                         RLEWMGWINAGNGNTKFSQKFQGRITVTRDTAAS
                                         TAYMELRSLRSEDTAVYYCARDSS
                                         NMVRGIIIAYYFDYWGQGTLVTVSSASTKGPSVF
                                         PLAPSSKSTSGGTAALGCLVKDYF
                                         PEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSS
                                         VVTVPSSSLGTQTYICNVNHKPSN
                                         TKVDKKVEPKSC"

SEQUENCE (SEQ):
     1 gccgaggtcc agctggtgca gtctggggct gaggtgagga agcctggggc ctcagtgaag
    61 gtttcctgca aggcttctgg atacgacttc agtaattatg ctatacattg ggtgcgccag
   121 gcccccggac aaaggcttga gtggatggga tggatcaacg ctggcaatgg gaacacaaaa
   181 ttttcacaga agttccaggg cagaatcacc gttaccaggg acacagccgc gagcacagcc
   241 tacatggagc tgcgcagtct gagatctgaa gacacggctg tgtattactg tgcgagagat
   301 tcctcaaata tggttcgggg aattattata gcgtactatt ttgactactg gggccagggc
   361 accctggtca ccgtctcaag cgcctccacc aagggcccat cggtcttccc cctggcaccc
   421 tcctccaaga gcacctctgg gggcacagcg gccctgggct gcctggtcaa ggactacttc
   481 cccgaaccgg tgacggtgtc gtggaactca ggcgccctga ccagcggcgt ccacaccttc
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```
   541 ccggctgtcc tacagtcctc aggactctac tccctcagca gcgtagtgac cgtgccctcc
   601 agcagcttgg gcacccagac ctacatctgc aacgtgaatc acaagcccag caacaccaag
   661 gtggacaaga aagttgagcc caaatcttgt
```

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```
LOCUS (LOC):              AX232566     GenBank (R)
GenBank ACC. NO. (GBN):   AX232566
GenBank VERSION (VER):    AX232566.1  GI:15592599
CAS REGISTRY NO. (RN):    391057-95-7
SEQUENCE LENGTH (SQL):    690
MOLECULE TYPE (CI):       DNA; linear
DIVISION CODE (CI):       Patent
DATE (DATE):              11 Sep 2001
DEFINITION (DEF):         Sequence 52 from Patent WO0162932.
SOURCE:                   human.
 ORGANISM (ORGN):         Homo sapiens
                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                          Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
                          Hominidae; Homo
NUCLEIC ACID COUNT (NA): 156 a   205 c   192 g   137 t
REFERENCE:                1  (bases 1 to 690)
   AUTHOR (AU):           Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
   TITLE (TI):            Antagonistic selective binding agents of
                          osteoprotegerin binding
                          protein
   JOURNAL (SO):          Patent: WO 0162932-A 52 30-AUG-2001; Amgen Inc. (US)
```

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..690	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>690	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69723.1" /db-xref="GI:15592600" /translation="AQVQLVQSGAEVRKPGASVK VSCKASGYDFSNYAIHWVRQAPGQ RLEWMGWINAGNGNTKFSQKFQGRITVTRDTAAS TAYMELRSLRSEDTAVYYCARDSS NMVRGIIIAYYFDYWGQGTLVTVSSASTKGPSVF PLAPSSKSTSGGTAALGCLVKDYF PEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSN TKVDKKVEPKSC"

SEQUENCE (SEQ):

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     1 gcccaggtcc agctggtgca gtctggggct gaggtgagga agcctggggc ctcagtgaag
    61 gtttcctgca aggcttctgg atacgacttc agtaattatg ctatacattg ggtgcgccag
   121 gccccccggac aaaggcttga gtggatggga tggatcaacg ctggcaatgg gaacacaaaa
   181 ttttcacaga agttccaggg cagaatcacc gttaccaggg acacagccgc gagcacagcc
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   301 tcctcaaata tggttcgggg aattattata gcgtactatt ttgactactg gggccagggc
   361 accctggtca ccgtctcaag cgcctccacc aagggcccat cggtcttccc cctggcaccc
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   541 ccggctgtcc tacagtcctc aggactctac tccctcagca gcgtagtgac cgtgccctcc
   601 agcagcttgg gcacccagac ctacatctgc aacgtgaatc acaagcccag caacaccaag
   661 gtggacaaga aagttgagcc caaatcttgt
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LOCUS (LOC):              AX232564     GenBank (R)
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GenBank ACC. NO. (GBN): AX232564
GenBank VERSION (VER): AX232564.1 GI:15592597
CAS REGISTRY NO. (RN): 391057-94-6
SEQUENCE LENGTH (SQL): 654
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 50 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 163 a 189 c 180 g 122 t
REFERENCE: 1 (bases 1 to 654)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 50 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..654	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>654	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69722.1" /db-xref="GI:15592598" /translation="SHSAQSVLTQPPSVSVSPGQ TATITCSGDALPKQYVYWYRQKPG QAPLLVIYEDSERPSGIPERFSGSSSGTEVTLSI SGVQAEDEADYYCQSTDSSGTYVV FGGGTKLTVLSQPKAAPSVTLFPPSSEELQANKA TLVCLISDFYPGAVTVAWKADSSP VKAGVETTTPSKQSNNKYAASSYLSLTPEQWKSH RSYSCQVTHEGSTVEKTVAPTECS "

SEQUENCE (SEQ):

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     1 tctcacagtg cacagtctgt gctgactcag ccaccctcgg tgtcagtgtc cccaggacag
    61 acggccacga tcacctgctc tggagatgca ttgccaaagc aatatgttta ttggtaccgg
   121 cagaagccag gccaggcccc tctattggtg atatatgaag acagtgagag gccctcaggg
   181 atccctgaac gattctctgg ctccagttca gggactgaag tcacgttgag tatcagtgga
   241 gtccaggcag aagacgaggc tgactattat tgtcaatcaa cagacagcag tgggacttat
   301 gtcgtcttcg gcggagggac caagctgacc gtcctaagtc agcccaaggc tgcccccctcg
   361 gtcactctgt tcccgccctc ctctgaggag cttcaagcca acaaggccac actggtgtgt
   421 ctcataagtg acttctaccc gggagccgtg acagtggcct ggaaggcaga tagcagcccc
   481 gtcaaggcgg gagtggagac caccacaccc tccaaacaaa gcaacaacaa gtacgcggcc
   541 agcagctatc tgagcctgac gcctgagcag tggaagtccc acagaagcta cagctgccag
   601 gtcacgcatg aagggagcac cgtggagaag acagtggccc ctacagaatg ttca
```

L4 ANSWER 114 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232562 GenBank (R)
GenBank ACC. NO. (GBN): AX232562
GenBank VERSION (VER): AX232562.1 GI:15592595
CAS REGISTRY NO. (RN): 391057-93-5
SEQUENCE LENGTH (SQL): 645
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 48 from Patent WO0162932.
SOURCE: human.

ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 163 a 182 c 171 g 129 t
REFERENCE: 1 (bases 1 to 645)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 48 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..645	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>645	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69721.1" /db-xref="GI:15592596" /translation="HSALEIVMTQSPGTLSLSPG ERATLSCRASQSVSSSSLAWYQQK PGQAPRLLIYGASSRATGIPDRFSGSGSGTDFTL TISRLEPEDFAVYYCQQYGAFGGG TKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCL LNNFYPREAKVQWKVDNALQSGNS QESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYA CEVTHQGLNSPVTKSFNRGEC"

SEQUENCE (SEQ):

```
     1 cacagtgcac ttgaaattgt gatgacacag tctccaggca ccctgtcttt gtctccaggg
    61 gaaagagcca ccctctcctg cagggccagt cagagtgtta gcagcagctc cttagcctgg
   121 taccagcaga aacctggcca ggctcccagg ctcctcatct atggtgcatc cagcagggcc
   181 actggcatcc cagacaggtt cagtggcagt gggtctggga cagacttcac tctcaccatc
   241 agcagactgg agcctgaaga ttttgcagtg tattactgtc agcagtatgg tgctttcggc
   301 ggagggacca aggtggagat caaacgaact gtggctgcac catctgtctt catcttcccg
   361 ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc
   421 tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc
   481 caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg
   541 acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag
   601 ggcctgaact cgcccgtcac aaagagcttc aacaggggag agtgt
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L4 ANSWER 115 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232560 GenBank (R)
GenBank ACC. NO. (GBN): AX232560
GenBank VERSION (VER): AX232560.1 GI:15592593
CAS REGISTRY NO. (RN): 391057-92-4
SEQUENCE LENGTH (SQL): 645
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 46 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 163 a 188 c 162 g 132 t
REFERENCE: 1 (bases 1 to 645)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding**

protein
JOURNAL (SO): Patent: WO 0162932-A 46 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..645	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>645	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69720.1" /db-xref="GI:15592594" /translation="SHSALEIVLTQSPATLSFSP GERATLSCRASQSVGSYLAWYQQR PGQAPRPLIYDATNRATGIPTRFSGSGSGTDFTL TISSLEPEDFATYYCQHRRTFGRG TKLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCL LNNFYPREAKVQWKVDNALQSGNS QESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYA CEVTHQGLSSPVTKSFNRGEC"

SEQUENCE (SEQ):

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     1 tctcacagtg cacttgaaat tgtgctgact cagtctccag ccaccctgtc tttttctccg
    61 ggtgaaagag ccaccctctc ctgcagggcc agtcagagtg ttggcagcta cttagcctgg
   121 taccagcaga gacctggcca ggctcccagg cccctcatct atgatgcaac caacagggcc
   181 actggcatcc caaccaggtt cagtggcagt gggtctggga cagacttcac tctcaccatc
   241 agcagcctag agcctgaaga ttttgcaact tattactgtc aacaccgaag gacttttggc
   301 cgggggacca agttggagat caaacgaact gtggctgcac catctgtctt catcttcccg
   361 ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc
   421 tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc
   481 caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg
   541 acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cactcatcag
   601 ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt
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L4 ANSWER 116 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232558 GenBank (R)
GenBank ACC. NO. (GBN): AX232558
GenBank VERSION (VER): AX232558.1 GI:15592591
CAS REGISTRY NO. (RN): 391057-91-3
SEQUENCE LENGTH (SQL): 645
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 44 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 172 a 177 c 160 g 136 t
REFERENCE: 1 (bases 1 to 645)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of
osteoprotegerin binding
protein
JOURNAL (SO): Patent: WO 0162932-A 44 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..645	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>645	/note="unnamed protein product"

/codon-start=1
/protein-id="CAC69719.1"
/db-xref="GI:15592592"
/translation="SHSALEIVMTQSPSSLSASV
GDRVTITCRASQSISRYLNWYQLK
PGKAPRLLIYGASSLQSGVPSRFSGSGSGAEFTL
TISSLQPEDIATYYCQHTRAFGQG
TKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCL
LNNFYPREAKVQWKVDNALQSGNS
QESATEQDSKDSTYSLSSTLTLSKADYEKHKVYA
CEVTHQGLSSPVTKSFNRGEC"

SEQUENCE (SEQ):
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     1 tctcacagtg cacttgaaat tgtgatgacg cagtctccat cctccctgtc tgcgtctgtt
    61 ggagacagag tcaccatcac ttgccgggca agtcagagca ttagcagata tttaaattgg
   121 tatcagctta aaccagggaa agcccctagg ctcctgatct atggtgcatc cagtttgcaa
   181 agtggagtcc catcaaggtt cagtggcagt ggatctgggg cagagttcac tctcaccatc
   241 agcagtctac aacctgaaga cattgccact tactactgtc aacacactcg ggcgttcggc
   301 caagggacca aggttgaaat caagcgaact gtggctgcac catctgtctt catcttcccg
   361 ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc
   421 tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc
   481 caggagagtg ccacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg
   541 acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag
   601 ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt
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L4 ANSWER 117 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232555 GenBank (R)
GenBank ACC. NO. (GBN): AX232555
GenBank VERSION (VER): AX232555.1 GI:15592589
CAS REGISTRY NO. (RN): 357143-28-3
SEQUENCE LENGTH (SQL): 32
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 41 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 6 a 10 c 5 g 11 t
REFERENCE: 1 (bases 1 to 32)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 41 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..32	/organism="Homo sapiens"
		/db-xref="taxon:9606"
CDS	<20..>31	/note="unnamed protein product"
		/codon-start=1
		/protein-id="CAC69718.1"
		/db-xref="GI:15592590"
		/translation="TLSP"

SEQUENCE (SEQ):
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     1 tttggacgtc gacttattaa cactctcccc tg
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L4 ANSWER 118 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232553 GenBank (R)
GenBank ACC. NO. (GBN): AX232553
GenBank VERSION (VER): AX232553.1 GI:15592587
CAS REGISTRY NO. (RN): 357143-27-2
SEQUENCE LENGTH (SQL): 44
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 39 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 11 a 6 c 15 g 12 t
REFERENCE: 1 (bases 1 to 44)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 39 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..44	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<2..>43	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69717.1" /db-xref="GI:15592588" /translation="WLRGARCEIVMTQS"

SEQUENCE (SEQ):
1 gtggttgaga ggtgccagat gtgaaattgt gatgacacag tctc

L4 ANSWER 119 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232551 GenBank (R)
GenBank ACC. NO. (GBN): AX232551
GenBank VERSION (VER): AX232551.1 GI:15592585
CAS REGISTRY NO. (RN): 357143-26-1
SEQUENCE LENGTH (SQL): 48
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 37 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 6 a 13 c 16 g 13 t
REFERENCE: 1 (bases 1 to 48)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 37 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier

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source          1..48                   /organism="Homo sapiens"
                                        /db-xref="taxon:9606"
CDS             <3..>47                 /note="unnamed protein product"
                                        /codon-start=1
                                        /protein-id="CAC69716.1"
                                        /db-xref="GI:15592586"
                                        /translation="AQLLGLLLLWLRGAR"

SEQUENCE (SEQ):
     1 ccgctcagct cctggggctc ctgctattgt ggttgagagg tgccagat

L4   ANSWER 120 OF 126    GENBANK®  COPYRIGHT 2004 on STN

LOCUS (LOC):            AX232549     GenBank (R)
GenBank ACC. NO. (GBN): AX232549
GenBank VERSION (VER):  AX232549.1  GI:15592583
CAS REGISTRY NO. (RN):  357143-25-0
SEQUENCE LENGTH (SQL):  48
MOLECULE TYPE (CI):     DNA; linear
DIVISION CODE (CI):     Patent
DATE (DATE):            11 Sep 2001
DEFINITION (DEF):       Sequence 35 from Patent WO0162932.
SOURCE:                 human.
 ORGANISM (ORGN):       Homo sapiens
                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                        Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
                        Hominidae; Homo
NUCLEIC ACID COUNT (NA): 10 a   16 c   14 g   8 t
REFERENCE:              1  (bases 1 to 48)
   AUTHOR (AU):         Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
   TITLE (TI):          Antagonistic selective binding agents of
                        osteoprotegerin binding
                        protein
   JOURNAL (SO):        Patent: WO 0162932-A 35 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):
  Feature Key       Location                Qualifier
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source          1..48                   /organism="Homo sapiens"
                                        /db-xref="taxon:9606"
CDS             17..>46                 /note="unnamed protein product"
                                        /codon-start=1
                                        /protein-id="CAC69715.1"
                                        /db-xref="GI:15592584"
                                        /translation="MDMRVPAQLL"

SEQUENCE (SEQ):
     1 cagaagcttg accaccatgg acatgagggt ccccgctcag ctcctggg

L4   ANSWER 121 OF 126    GENBANK®  COPYRIGHT 2004 on STN

LOCUS (LOC):            AX232547     GenBank (R)
GenBank ACC. NO. (GBN): AX232547
GenBank VERSION (VER):  AX232547.1  GI:15592582
CAS REGISTRY NO. (RN):  357143-24-9
SEQUENCE LENGTH (SQL):  30
MOLECULE TYPE (CI):     DNA; linear
DIVISION CODE (CI):     Patent
DATE (DATE):            11 Sep 2001
DEFINITION (DEF):       Sequence 33 from Patent WO0162932.
SOURCE:                 human.
 ORGANISM (ORGN):       Homo sapiens
                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                        Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
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Hominidae; Homo
NUCLEIC ACID COUNT (NA): 7 a 5 c 14 g 4 t
REFERENCE: 1 (bases 1 to 30)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 33 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..30	/organism="Homo sapiens" /db-xref="taxon:9606"

SEQUENCE (SEQ):
1 gtggaggcac tagagacggt gaccagggtg

L4 ANSWER 122 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232545 GenBank (R)
GenBank ACC. NO. (GBN): AX232545
GenBank VERSION (VER): AX232545.1 GI:15592580
CAS REGISTRY NO. (RN): 357143-23-8
SEQUENCE LENGTH (SQL): 42
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 31 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
NUCLEIC ACID COUNT (NA): 9 a 12 c 12 g 9 t
REFERENCE: 1 (bases 1 to 42)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 31 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..42	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<1..>42	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69714.1" /db-xref="GI:15592581" /translation="SVTTGVHSQVQLVQ"

SEQUENCE (SEQ):
1 tcagtaacga ctggtgtcca ctcacaggtc cagctggtgc ag

L4 ANSWER 123 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232542 GenBank (R)
GenBank ACC. NO. (GBN): AX232542
GenBank VERSION (VER): AX232542.1 GI:15592578
CAS REGISTRY NO. (RN): 357143-22-7
SEQUENCE LENGTH (SQL): 44
MOLECULE TYPE (CI): DNA; linear

DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 28 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 6 a 12 c 10 g 16 t
REFERENCE: 1 (bases 1 to 44)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 28 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..44	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	<2..31	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69713.1" /db-xref="GI:15592579" /translation="AGSFSSSCQ"

SEQUENCE (SEQ):
1 agctgggtct ttctcttctt cctgtcagta acgactggtg tcca

L4 ANSWER 124 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232540 GenBank (R)
GenBank ACC. NO. (GBN): AX232540
GenBank VERSION (VER): AX232540.1 GI:15592576
CAS REGISTRY NO. (RN): 357143-21-6
SEQUENCE LENGTH (SQL): 45
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 26 from Patent WO0162932.
SOURCE: human.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 10 a 11 c 11 g 13 t
REFERENCE: 1 (bases 1 to 45)
AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
TITLE (TI): Antagonistic selective binding agents of **osteoprotegerin binding protein**
JOURNAL (SO): Patent: WO 0162932-A 26 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..45	/organism="Homo sapiens" /db-xref="taxon:9606"
CDS	18..>44	/note="unnamed protein product" /codon-start=1 /protein-id="CAC69712.1" /db-xref="GI:15592577" /translation="MEWSWVFLF"

SEQUENCE (SEQ):
 1 cagaagctta gaccaccatg gaatggagct gggtctttct cttct

L4 ANSWER 125 OF 126 GENBANK® COPYRIGHT 2004 on STN

LOCUS (LOC): AX232537 GenBank (R)
GenBank ACC. NO. (GBN): AX232537
GenBank VERSION (VER): AX232537.1 GI:15592575
CAS REGISTRY NO. (RN): 383240-49-1
SEQUENCE LENGTH (SQL): 24
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 23 from Patent WO0162932.
SOURCE: human.
 ORGANISM (ORGN): Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
 Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
 Hominidae; Homo
NUCLEIC ACID COUNT (NA): 3 a 5 c 5 g 11 t
REFERENCE: 1 (bases 1 to 24)
 AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
 TITLE (TI): Antagonistic selective binding agents of
 osteoprotegerin binding
 protein
 JOURNAL (SO): Patent: WO 0162932-A 23 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..24	/organism="Homo sapiens" /db-xref="taxon:9606"

SEQUENCE (SEQ):
 1 tttgtcgtct ttccagacgt tagt

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LOCUS (LOC): AX232536 GenBank (R)
GenBank ACC. NO. (GBN): AX232536
GenBank VERSION (VER): AX232536.1 GI:15592574
CAS REGISTRY NO. (RN): 357143-20-5
SEQUENCE LENGTH (SQL): 18
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 11 Sep 2001
DEFINITION (DEF): Sequence 22 from Patent WO0162932.
SOURCE: human.
 ORGANISM (ORGN): Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
 Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
 Hominidae; Homo
NUCLEIC ACID COUNT (NA): 3 a 6 c 3 g 6 t
REFERENCE: 1 (bases 1 to 18)
 AUTHOR (AU): Deshpande,R.V.; Hitz,A.; Boyle,W.J.; Sullivan,J.K.
 TITLE (TI): Antagonistic selective binding agents of
 osteoprotegerin binding
 protein
 JOURNAL (SO): Patent: WO 0162932-A 22 30-AUG-2001; Amgen Inc. (US)

FEATURES (FEAT):

Feature Key	Location	Qualifier

source 1..18 /organism="Homo sapiens"
/db-xref="taxon:9606"

SEQUENCE (SEQ):
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=> D L3 1-21

L3 ANSWER 1 OF 21 USPATFULL on STN
AN 2004:203879 USPATFULL
TI Rank-ligand-induced sodium/proton antiporter polypeptides
IN Bird, Timothy A., Bainbridge, WA, UNITED STATES
Tometsko, Mark E., Seattle, WA, UNITED STATES
Dougall, William C., Seattle, WA, UNITED STATES
Mosley, Bruce A., Seattle, WA, UNITED STATES
PI US 2004157771 A1 20040812
AI US 2003-372613 A1 20030221 (10)
PRAI US 2002-361891P 20020228 (60)
DT Utility
FS APPLICATION
LN.CNT 5274
INCL INCLM: 514/012.000
INCLS: 530/350.000; 435/069.100; 435/320.100; 435/325.000; 536/023.500
NCL NCLM: 514/012.000
NCLS: 530/350.000; 435/069.100; 435/320.100; 435/325.000; 536/023.500
IC [7]
ICM: A61K038-17
ICS: C07K014-705; C07H021-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN 2003:435069 CAPLUS
DN 139:35078
TI Selective binding agents of **osteoprotegerin binding protein** (OPGbp), such as antagonist **antibodies**, for use in the treatment of bone disorders
IN Deshpande, Rajendra V.; Hitz, Anna; Boyle, William James; Sullivan, John K.
PA Amgen Inc., USA
SO U.S. Pat. Appl. Publ., 123 pp., Cont.-in-part of U.S. Ser. No. 511,139, abandoned.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003103978	A1	20030605	US 2001-791153	20010222
	WO 2001062932	A1	20010830	WO 2001-US5973	20010223
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1257648	A1	20021120	EP 2001-911158	20010223
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003523772	T2	20030812	JP 2001-562706	20010223
PRAI	US 2000-511139	B2	20000223		

US 2001-791153 A 20010222
WO 2001-US5973 W 20010223

L3 ANSWER 3 OF 21 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 2
AN 10360068 IFIPAT;IFIUDB;IFICDB
TI **ANTIBODIES** SPECIFIC FOR **OSTEOPROTEGERIN** **BINDING PROTEINS** AND METHOD OF USE; NUCLEOTIDE SEQUENCES CODING POLYPEPTIDE FOR USE IN TREATMENT OF BONE DISORDERS
IN BOYLE WILLIAM J
PA Unassigned Or Assigned To Individual (68000)
PI US 2003104485 A1 20030605
AI US 1998-79569 19980514
RLI US 1997-842842 19970416 DIVISION 5843678
FI US 2003104485 20030605
US 5843678
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 33
GI 3 Figure(s).
FIG. 1. Structure and sequence of the 32D-F3 insert encoding OPG binding protein. Predicted transmembrane domain and sites for asparagine-linked carbohydrate chains are underlined.
FIG. 2. OPG binding protein expression in COS-7 cells transfected with pcDNA/32I)-F3. Cells were lipofected with pcDNA/32D-F3 DNA, the assayed for binding to either goat antihuman IgG1 alkaline phosphatase conjugate (secondary alone), human OPG(22-201)-Fc plus secondary (OPG-Fc), or a chimeric ATAR extracellular domain-Fc fusion protein (sATAR-Fc). ATAR is a new member of the TNFR superfamily, and the sATAR-Fc fusion protein serves as a control for both human IgG1 Fc domain binding, and generic TNFR releated protein, binding to 32D cell surface molecules.
FIG. 3. Expression of OPG binding protein in human tissues. Northern blot analysis of human tissue mRNA (Clontech) using a radiolabeled 32D-F3 derived hybridization probe. Relative molecular mass is indicated at the left in kilobase pairs (kb). Arrowhead on right side indicates the migration of an approximately 2.5 kb transcript detected in lymph node mRNA. A very faint band of the same mass is also detected in fetal liver.

L3 ANSWER 4 OF 21 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 3
AN 10356071 IFIPAT;IFIUDB;IFICDB
TI **OSTEOPROTEGERIN BINDING PROTEINS**; FOR THERAPY OF BONE DISEASES, SUCH AS OSTEOPOROSIS, BONE LOSS FROM ARTHRITIS, PAGET'S DISEASE, AND HYPERCALCEMIA
IN BOYLE WILLIAM J
PA Unassigned Or Assigned To Individual (68000)
PI US 2003100488 A1 20030529
AI US 1998-211297 19981214
RLI US 1997-880855 19970623 CONTINUATION
US 1997-842842 19970416 CONTINUATION-IN-PART 5843678
FI US 2003100488 20030529
US 5843678
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 36
GI 9 Figure(s).
FIG. 1. Structure and sequence of the 32D-F3 insert encoding OPG binding protein. Predicted transmembrane domain and sites for asparagine-linked carbohydrate chains are underlined.
FIG. 2. OPG binding protein expression in COS-7 cells transfected with pcDNA/32D-F3. Cells were lipofected with pcDNA/ 32D-F3 DNA, the assayed for binding to either goat anti-human IgG1 alkaline phosphatase conjugate (secondary alone), human OPG(22-201)-Fc plus secondary (OPG-Fc), or a chimeric ATAR extracellular domain-Fc fusion protein (sATAR-Fc). ATAR is

a new member of the TNFR superfamily, and the sATAR-Fc fusion protein serves as a control for both human IgG1 Fc domain binding, and generic TNFR releated protein, binding to 32D cell surface molecules.

FIG. 3. Expression of OPG binding protein in human tissues. Northern blot analysis of human tissue mRNA (Clontech) using a radiolabeled 32D-F3 derived hybridization probe. Relative molecular mass is indicated at the left in kilobase pairs (kb). Arrowhead on right side indicates the migration of an approximately 2.5 kb transcript detected in lymph node mRNA. A very faint band of the same mass is also detected in fetal liver.

FIG. 4. Structure and sequence of the pcDNA/hu OPGbp 1.1 insert encoding the human OPG binding protein. The predicted transmembrane domain and site for asparagine-linked charbohydrate chains are underlined.

FIG. 5. Stimulation of osteoclast development in vitro from bone marrow macrophage and ST2 cell cocultures treated with recombinant murine OPG binding protein (158-316). Cultures were treated with varying concentrations of murine OPG binding protein ranging from 1.6 to 500 ng/ml. After 8-10 days, cultures were lysed, and TRAP activity was measured by solution assay. In addition, some cultures were simultaneously treated with 1, 10, 100, 500, and 1000 ng/ml of recombinant murine OPG (22-401)-Fc protein. Murine OPG binding protein induces a dosedependent stimulation in osteoclast formation, whereas OPG (22401)-Fc inhibits osteoclast formation.

FIG. 6. Stimulation of osteoclast development from bone marrow precursors in vitro in the presence of M-CSF and murine OPG binding protein (158-316). Mouse bone marrow was harvested, and cultured in the presence 250, 500, 1000, and 2000 U/ml of M-CSF. Varying concentrations of OPG binding protein (158-316), ranging from 1.6 to 500 ng/ml, were added to these same cultures. Osteoclast development was measured by TRAP solution assay.

FIG. 7. Osteoclasts derived from bone marrow cells in the presence of both M-CSF and OPG binding protein (158-316) resorb bone in vitro. Bone marrow cells treated with either M-CSF, OPG binding protein, or with both factors combined, were plated onto bone slices in culture wells, and were allowed to develop into mature osteoclasts. The resulting cultures were then stained with Toluidine Blue (left column), or histochemically to detect TRAP enzyme activity (right column). In cultures receiving both factors, mature osteoclasts were formed that were capable of eroding bone as judged by the presence of blue stained pits on the bone surface. This correlated with the presence of multiple large, multinucleated, TRAP positive cells.

FIG. 8. Graph showing the whole blood ionized calcium (iCa) levels from mice injected with OPG binding protein, 51 hours after the first injection, and in mice also receiving concurrent OPG administration. OPG binding protein significantly and dose dependently increased iCa levels. OPG (1 mg/kg/day) completely blocked the increase in iCa at a dose of OPG binding protein of 5 ug/day, and partially blocked the increase at a dose of OPG binding protein of 25 ug/day. (*), different to vehicle treated control (p less-than 0.05). (#), OPG treated iCa level significantly different to level in mice receiving that dose of OPG binding protein alone (p less-than 0. 05).

FIG. 9. Radiographs of the left femur and tibia in mice treated with 0, 5, 25 or 100 ug/day of OPG binding protein for 3.5 days. There is a dose dependent decrease in bone density evident most clearly in the proximal tibial metaphysis of these mice, and that is profound at a dose of 100 ug/day.

L3 ANSWER 5 OF 21 USPATFULL on STN
AN 2003:277129 USPATFULL
TI Peptides and related molecules that bind to TALL-1
IN Min, Hosung, Newbury Park, CA, UNITED STATES
Hsu, Hailing, Moorpark, CA, UNITED STATES
Xiong, Fei, Thousand Oaks, CA, UNITED STATES
PA Amgen Inc. (U.S. corporation)
PI US 2003195156 A1 20031016

AI US 2002-145206 A1 20020513 (10)
PRAI US 2001-290196P 20010511 (60)
DT Utility
FS APPLICATION
LN.CNT 2728
INCL INCLM: 514/014.000
INCLS: 514/015.000
NCL NCLM: 514/014.000
NCLS: 514/015.000
IC [7]
ICM: A61K038-10
ICS: A61K038-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 6 OF 21 USPATFULL on STN
AN 2003:146245 USPATFULL
TI TALL-1 receptor molecules and uses thereof
IN Hsu, Hailing, Moorpark, CA, UNITED STATES
PA Amgen Inc. A Corporation of the State of Delaware (U.S. corporation)
PI US 2003099990 A1 20030529
AI US 2002-251947 A1 20020920 (10)
PRAI US 2001-324238P 20010921 (60)
DT Utility
FS APPLICATION
LN.CNT 4507
INCL INCLM: 435/006.000
INCLS: 435/007.200; 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
NCL NCLM: 435/006.000
NCLS: 435/007.200; 435/069.100; 435/320.100; 435/325.000; 530/350.000; 536/023.500
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; C07H021-04; C12P021-02; C12N005-06; C07K014-705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 7 OF 21 USPATFULL on STN
AN 2003:57548 USPATFULL
TI Composition and methods for the production of biological tissues and tissue constructs
IN Mizuno, Shuichi, Brookline, MA, UNITED STATES
Tokuno, Toshimasa, Tokyo, JAPAN
Berlowitz Tarrant, Laurence J., Easthampton, MA, UNITED STATES
PA Histogenics Corporation, Easthampton, MA (U.S. corporation)
PI US 2003040113 A1 20030227
AI US 2002-104677 A1 20020322 (10)
PRAI US 2001-278534P 20010323 (60)
US 2002-352085P 20020124 (60)
DT Utility
FS APPLICATION
LN.CNT 1569
INCL INCLM: 435/395.000
NCL NCLM: 435/395.000
IC [7]
ICM: C12N005-02
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 8 OF 21 USPATFULL on STN
AN 2003:29843 USPATFULL
TI Use of rank antagonists to treat cancer
IN Dougall, William C., Seattle, WA, UNITED STATES
PI US 2003021785 A1 20030130
AI US 2002-166232 A1 20020605 (10)

PRAI US 2001-296670P 20010606 (60)
DT Utility
FS APPLICATION
LN.CNT 1870
INCL INCLM: 424/146.100
INCLS: 514/012.000; 514/044.000
NCL NCLM: 424/146.100
NCLS: 514/012.000; 514/044.000
IC [7]
ICM: A61K048-00
ICS: A61K038-17; A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 9 OF 21 USPATFULL on STN
AN 2003:23315 USPATFULL
TI Therapeutic use of rank antagonists
IN Dougall, William C., Seattle, WA, UNITED STATES
Anderson, Dirk M., Seattle, WA, UNITED STATES
PI US 2003017151 A1 20030123
AI US 2002-151071 A1 20020517 (10)
PRAI US 2001-291919P 20010517 (60)
DT Utility
FS APPLICATION
LN.CNT 2176
INCL INCLM: 424/143.100
INCLS: 514/044.000
NCL NCLM: 424/143.100
NCLS: 514/044.000
IC [7]
ICM: A61K048-00
ICS: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 10 OF 21 USPATFULL on STN
AN 2003:17899 USPATFULL
TI Stimulation of osteogenesis using rank ligand fusion proteins
IN Lam, Jonathan, West Memphis, AR, UNITED STATES
Ross, F. Patrick, Olivette, MO, UNITED STATES
Teitelbaum, Steven L., University City, MO, UNITED STATES
PA Barnes-Jewish Hospital (2)
PI US 2003013651 A1 20030116
AI US 2002-105057 A1 20020322 (10)
PRAI US 2001-277855P 20010322 (60)
US 2001-311163P 20010809 (60)
US 2001-329231P 20011012 (60)
US 2001-328876P 20011012 (60)
US 2001-329393P 20011015 (60)
DT Utility
FS APPLICATION
LN.CNT 1942
INCL INCLM: 514/012.000
NCL NCLM: 514/012.000
IC [7]
ICM: A61K038-17
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 11 OF 21 USPATFULL on STN DUPLICATE 4
AN 2002:156701 USPATFULL
TI Methods and compositions of matter concerning APRIL/G70, BCMA,
BLYS/AGP-3 and TACI
IN Theill, Lars Eyde, Thousand Oaks, CA, UNITED STATES
Yu, Gang, Thousand Oaks, CA, UNITED STATES
PI US 2002081296 A1 20020627
US 6774106 B2 20040810

AI US 2001-854864 A1 20010514 (9)
PRAI US 2000-204039P 20000512 (60)
US 2000-214591P 20000627 (60)
DT Utility
FS APPLICATION
LN.CNT 2383
INCL INCLM: 424/144.100
INCLS: 424/155.100
NCL NCLM: 514/012.000
NCLS: 424/185.100; 424/192.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 12 OF 21 USPATFULL on STN
AN 2002:287553 USPATFULL
TI Receptor from TNF family
IN Boyle, William J., Moorpark, CA, UNITED STATES
Hsu, Hailing, Moorpark, CA, UNITED STATES
PI US 2002160416 A1 20021031
AI US 2001-779050 A1 20010212 (9)
PRAI US 2000-181800P 20000211 (60)
DT Utility
FS APPLICATION
LN.CNT 2856
INCL INCLM: 435/007.100
INCLS: 530/389.100; 530/395.000; 536/053.000
NCL NCLM: 435/007.100
NCLS: 530/389.100; 530/395.000; 536/053.000
IC [7]
ICM: G01N033-53
ICS: C07K016-46; C08B037-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 13 OF 21 USPATFULL on STN
AN 2002:272856 USPATFULL
TI TNF receptor-like molecules and uses thereof
IN Theill, Lars Eyde, Thousand Oaks, CA, UNITED STATES
Yeh, Richard, Ithaca, NY, UNITED STATES
Silbiger, Scott Michael, Woodland Hills, CA, UNITED STATES
Yu, Gang, Thousand Oaks, CA, UNITED STATES
Senaldi, Giorgio, Thousand Oaks, CA, UNITED STATES
PI US 2002150977 A1 20021017
AI US 2001-948018 A1 20010905 (9)
PRAI US 2000-230191P 20000905 (60)
DT Utility
FS APPLICATION
LN.CNT 5781
INCL INCLM: 435/069.100
INCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.500; 435/194.000
NCL NCLM: 435/069.100
NCLS: 435/325.000; 435/320.100; 530/350.000; 536/023.500; 435/194.000
IC [7]
ICM: C12P021-02
ICS: C12N005-06; C07H021-04; C12N009-12
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 14 OF 21 USPATFULL on STN
AN 2002:164694 USPATFULL
TI Screening assays for agonists and antagonists of receptor activator of NF-kappa B
IN Dougall, William C., Seattle, WA, UNITED STATES
PI US 2002086312 A1 20020704
AI US 2001-957944 A1 20010920 (9)

PRAI US 2000-235157P 20000922 (60)
DT Utility
FS APPLICATION
LN.CNT 3029
INCL INCLM: 435/006.000
INCLS: 435/007.210
NCL NCLM: 435/006.000
NCLS: 435/007.210
IC [7]
ICM: C12Q001-68
ICS: G01N033-567
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 15 OF 21 USPATFULL on STN
AN 2002:164405 USPATFULL
TI Methods and compositions of matter concerning APRIL/G70, BCMA, BLYS/AGP-3, and TACI
IN Theill, Lars Eyde, Thousand Oaks, CA, UNITED STATES
Yu, Gang, Thousand Oaks, CA, UNITED STATES
PI US 2002086018 A1 20020704
AI US 2001-855158 A1 20010514 (9)
PRAI US 2000-204039P 20000512 (60)
US 2000-214591P 20000627 (60)
DT Utility
FS APPLICATION
LN.CNT 1973
INCL INCLM: 424/146.100
INCLS: 424/153.100
NCL NCLM: 424/146.100
NCLS: 424/153.100
IC [7]
ICM: A61K039-395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 16 OF 21 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
DUPLICATE
AN 2002:34223904 BIOTECHNO
TI Antagonistic selective binding agents of **osteoprotegerin binding protein**
SO Expert Opinion on Therapeutic Patents, (2002), 12/3 (469-470), 5 reference(s)
CODEN: EOTPEG ISSN: 1354-3776
DT Journal; Article
CY United Kingdom
LA English
SL English

L3 ANSWER 17 OF 21 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
DUPLICATE 6
AN 2002-00826 BIOTECHDS
TI **Antibodies** that bind antagonistically to osteoprotein binding, useful for treating osteporosis, metastasis of cancer to bone, rheumatoid arthritis, hypercalcemia of malignancy and steroid osteoporosis; monoclonal **antibody** and humanized **antibody**, vector expression in CHO cell
AU Deshpande R V; Hitz A; Boyle W J; Sullivan J K
PA Amgen
LO Thounsand Oaks, CA, USA.
PI WO 2001062932 30 Aug 2001
AI WO 2001-US5973 23 Feb 2001
PRAI US 2001-791153 22 Mar 2001; US 2000-511139 23 Feb 2000
DT Patent
LA English
OS WPI: 2001-557706 [62]

L3 ANSWER 18 OF 21 USPATFULL on STN
AN 2001:202591 USPATFULL
TI Methods of use for osetoprotegerin binding protein receptors
IN Boyle, William J., Moorpark, CA, United States
PA Amgen Inc., Thousand Oaks, CA, United States (U.S. corporation)
PI US 6316408 B1 20011113
AI US 1998-52521 19980330 (9)
RLI Continuation-in-part of Ser. No. US 1997-880855, filed on 23 Jun 1997
Continuation-in-part of Ser. No. US 1997-842842, filed on 16 Apr 1997, now patented, Pat. No. US 5843678
DT Utility
FS GRANTED
LN.CNT 1868
INCL INCLM: 514/012.000
INCLS: 530/350.000
NCL NCLM: 514/012.000
NCLS: 530/350.000
IC [7]
ICM: C07K014-00
EXF 514/12; 530/350
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 19 OF 21 USPATFULL on STN
AN 2001:14213 USPATFULL
TI Method for diagnosing and treating chronic pelvic pain syndrome
IN Alexander, Richard B., Ellicott City, MD, United States
Ponniah, Sathibalan, Ellicott City, MD, United States
PA University of Maryland, Baltimore, Baltimore, MD, United States (U.S. corporation)
PI US 6180355 B1 20010130
AI US 1999-306927 19990507 (9)
PRAI US 1998-84668P 19980507 (60)
DT Utility
FS Granted
LN.CNT 3501
INCL INCLM: 435/007.100
INCLS: 435/007.800
NCL NCLM: 435/007.100
NCLS: 435/007.800
IC [7]
ICM: G01N033-50
ICS: G01N033-53
EXF 435/7.1; 435/7.8; 435/7.92; 435/7.94; 424/1.41; 424/145.1; 424/158.1; 436/501; 436/86; 436/87
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:712352 CAPLUS
DN 129:328897
TI A protein binding osteoprotegerin playing a role in osteoclast maturation for use in the treatment of bone loss
IN Boyle, William J.
PA Amgen Inc., USA
SO PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9846751	A1	19981022	WO 1998-US7584	19980415

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,

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            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
            CM, GA, GN, ML, MR, NE, SN, TD, TG
    US 5843678          A     19981201    US 1997-842842          19970416
    US 6316408          B1    20011113    US 1998-52521           19980330
    AU 9871205          A1    19981111    AU 1998-71205           19980415
    AU 743257           B2    20020124
    EP 975754           A1    20000202    EP 1998-918244          19980415
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    BR 9808545          A     20000523    BR 1998-8545            19980415
    EE 9900611          A     20000815    EE 1999-611             19980415
    JP 2001526532       T2    20011218    JP 1998-544257          19980415
    NZ 500253           A     20020927    NZ 1998-500253          19980415
    ZA 9803189          A     19981016    ZA 1998-3189            19980416
    US 2003104485       A1    20030605    US 1998-79569           19980514
    MX 9909387          A     20000630    MX 1999-9387            19991013
    NO 9905044          A     19991215    NO 1999-5044            19991015
PRAI US 1997-842842     A     19970416
    US 1997-880855      A2    19970623
    US 1998-52521       A     19980330
    WO 1998-US7584      W     19980415
RE.CNT  5     THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3   ANSWER 21 OF 21  USPATFULL on STN
AN     1998:150695  USPATFULL
TI     Osteoprotegerin binding proteins
IN     Boyle, William J., Moorpark, CA, United States
PA     Amgen Inc., Thousand Oaks, CA, United States (U.S. corporation)
PI     US 5843678              19981201
AI     US 1997-842842          19970416 (8)
DT     Utility
FS     Granted
LN.CNT 1022
INCL   INCLM: 435/007.100
       INCLS: 514/002.000; 530/350.000; 530/300.000
NCL    NCLM:  435/007.100
       NCLS:  514/002.000; 530/300.000; 530/350.000
IC     [6]
       ICM: C12Q001-00
       ICS: C07K014-00
EXF    530/300; 530/350; 514/2; 435/7.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
STN INTERNATIONAL LOGOFF AT 12:32:28 ON 07 OCT 2004
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